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ABSTRACT

This document is the third volume of special topics dealing with the behaviors of children and adolescents developed as a resource for school psychologists in Iowa. Each of the four chapters in this volume deals with a separate topic and typically includes background information concerning the topic, approaches regarding assessment of the behavior of concern, intervention possibilities, monitoring methods, and other considerations. "Assessment and Remediation of Study Skill Deficits in Secondary Students" (Joan E. Kuepper) discusses study skill deficits from the aspect of assessment techniques and intervention strategies. "Sexually Active Children and Adolescents" (Susan Hatfield) constitutes an overview of sexuality and the school-aged child spanning sexual development, activity, adjustment problems, fears, and handicapping conditions. "Self-Injurious and Stereotypic Behavior in Children and Adolescents" (Susan Epps) examines both biological and behavioral approaches to the treatment of self-injury and stereotypy. "A Framework for the Introduction of Suicide" (Marcel Slaats) highlights the history of suicide, briefly discusses the theories of suicide, reviews the research, and emphasizes assessment and intervention of suicide. Reference lists are included. (NB)

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Psychological Approaches to

Problems of Children and Adolescents

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Iowa Department of Education
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Psychological Approaches to Problems of Children and Adolescents

Editors: Jeff Grimes and Alex Thomas

1987

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Table of Contents

Page

Assessment and Remediation of Study Skill Deficits 1

Sexually Active Children and Adolescents 103

Self-Injurious and Stereotypic Behavior in Children and Adolescents 207

A Framework for the Introduction of Suicide 243

FOREWARD

As school psychologists we encounter a variety of complex problems in the behaviors of children and adolescents referred for special services. This is the third volume of special topics developed for school psychologists in Iowa. The two previous volumes are available through ERIC.

Each chapter typically includes the following content, background information concerning the specific topic, approaches regarding assessment of the behavior of concern, intervention possibilities, monitoring methods and other considerations. This book is designed as a resource for school psychologists working with these behaviors in a school and home setting.

There are many people whose work has been critical in making this publication possible: the authors have put countless hours into the thoughtful writing of their chapters; secretarial services of Jody Crane and Jeri Crane were invaluable in creating the final version of the text; and David Happe, who provided an excellent, thorough and thoughtful job of technical editing. It's a combined effort, done for you, the school psychologists who work with the children and adolescents who have special needs. We hope this volume will, in fact, be a useful resource that helps in your successful work with children and youth.

J. G. & A. T.

Assessment and Remediation of Study Skill Deficits in Secondary Students

Joan E. Kuepper

Abstract: Study skill deficits are discussed from the aspect of assessment techniques and intervention strategies. A review of research covering the area is made along with in-depth descriptions of several remediation approaches involving individual, small group, and large group efforts. Sample project materials are provided in the appendix for multi-skill approaches. Skill specific and content specific approaches are described with references provided. Monitoring and evaluation of outcomes are discussed. Suggestions for the scope and variety of future intervention possibilities are made.

Chapter Outline

Definition, Background and History 3

Assessment and Diagnostic Procedures 5

Intervention Strategies 11

General Background 11
General Approaches 12
Direct Methods 12
Individual Sessions 12
Small Group Sessions 20
Large Group Sessions 22
Indirect Methods 28
Skill Specific Approaches 30
Motivation
Advance Organizers 32
Questioning 36
Notetaking 36
Outlining 37
Underlining 38
Writing Frames 38
Use of References 39
Test Preparation and Test Taking 39
Content Specific Approaches 41
Science, Social Studies, and Language Arts 41
Science 41
Social Studies 42
Graphics 42
Math 43
Art 43

Evaluation and Monitoring 43

Conclusions and Considerations 45

Annotated References 47

References and Appendix 49

Author's Note

This writer wishes to express gratitude to the dedicated educators listed below for their past encouragement of and direct cooperation with projects described in this chapter as well as their continuing support of future study skills teaching efforts.

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Definition, Background and History

The topic of study skill deficits must begin with an understanding of how study skills are defined. Swiderski and Zettel (1982) referred to Webster's definition of study as "the process of acquiring by one's own efforts knowledge of a subject". Various competencies are seen as comprising a total approach to thinking about how to think and thinking about how to study (metacognitions). Presently, there is no clear agreement as to exactly what the separate study skill competencies are, and the debate over what should and should not be included has continued since this area of research began in the late 19th century. In a brief historical review, Lazarus, Cohen, and Pilth aided by Robinson (1979) traced the development of research findings in the field up to this decade and highlighted several significant contributions with years of publication as follows:

1908	Huey urged the incorporation of reading and study skills into the curriculum
1929	Washburne showed the usefulness of self-developed, purposeful questions while reading
1930	Barton demonstrated training efficacy for outlining
1942	Arnold reported no significant advantages to underlining, outlining, and summarizing, but then surmised that lack of training in these new techniques may have been the reason for such results
1945	McCullough urged the use of teacher prepared tests to help students learn from context clues before reading for comprehension
1954	Simpson advocated teaching of a general series of techniques covering many skills
1959	Perry found only one percent of a college population used selection overviewing before reading and only ten percent skimmed beyond the page presently read
1962	Berkey related that reading and study skill teaching led to better results in content area reading
1964	Karlin urged specific skill instruction by individual content teachers especially pertinent to each area
1975	Allington recommended helping students to organize study but allow them to develop their own purposes and strategies
1976	Hansell advocated prereading understanding of structure and developing of hypothesis to be tested upon reading

In an attempt to define what the significant skill areas are and how they relate to the total learning process Brown et al. (1980) proposed a model for effective learning that has four major factors: (1) activities by the learner, which includes the strategies available to the student in his repertoire; (2) characteristics of the learner, which includes abilities and prior knowledge which can be applied; (3) nature of the materials, which includes types of materials and structuring of materials which the learner must perceive; and (4) the critical task, which involves what the purpose of the task is and what outcomes are expected.

Armbruster and Anderson (1981) in writing a synthesis on study skills research proposed a similar overview for the topic with the four categories of: (1) nature of the criterion task, wherein the more the expert students know about the task the better they can structure their study efforts; (2) nature of study materials, wherein expert students know how to identify organizational patterns inherent in text structure; (3) students' characteristics, wherein expert students have a range of cognitive and metacognitive skills and can match their own mental resources to the demands of the study situation; and (4) strategies used by students, wherein expert students use, at a minimum, these four subskills: focusing attention, encoding, monitoring comprehension, and changing approaches if correction is needed for adequate comprehension. Armbruster and Anderson summarize this sophisticated overview by stating simply that "studying is effective when students process the 'right information' in the 'right way'". Citing Brown, Campione, and Day (1981) they suggest minimum guidelines for the areas of instruction for study skills that correlate with Brown's four major factors.

In Blueprints for Learning: The Role of Study Skills in Total School Achievement (Swiderski and Zettel, 1982) the proposed skills that "count the most" are listed as follows: (1) scheduling of specific study time, (2) arranging for specific study place, (3) listening in the classroom context, (4) learning to follow directions, (5) methods for improving memory, (6) methods to retain concept knowledge, and (7) notetaking strategies. A need to assure transfer from one content area to another is also addressed by these authors.

The prevalence of study skill deficits is not estimated in the research, but from the viewpoint of a school psychologist serving secondary level student populations, a significant number of referrals seem to include this problem. Deficiencies tend to emerge as a factor in lower achievement than would have been predicted when correcting for other factors that may also impact upon achievement levels. For the purpose of this chapter, a deficit in study skills will be defined as a lower achievement level than would have been predicted based on intellectual potential.

Of interest at this point might be a brief discussion as to what study skills are seen are relevant by classroom teachers. At least two studies have investigated the opinion of content area teachers towards the need for study skills and the teaching of such. Criscuolo, Vacca, and LeVorgna (1980) surveyed 50 secondary teachers using a questionnaire procedure. Queries concerning instructional areas of vocabulary, comprehension, evaluation, decoding, and study and reference skills were included in the effort. A rating scale from one to seven was used allowing for a strong indication of "makes sense" (1) to "makes no sense" (7). In brief, the teachers supported approaches which did not require special training to those which heavily emphasized "meaning-getting" strategies. Some of the more significant percentages were: a 70% endorsement for teacher awareness of textbook readability level, 74% agreement that following directions and recognition of sequence was important, 72% support for teaching use of indexes, 68% for teaching outlining, 66% for teaching SQ3R method, 71% endorsement for instruction in root words and prefixes, and 68% support for contextual analysis and instruction. Remembering that these respondents were secondary instructors, the percentages are gratifying to those who believe a need to specifically teach basic study skills continues throughout middle school and high school.

A second study (Morrison, 1980) was conducted with 400 secondary teachers in seven content areas covering an eight state area. The teachers were asked to indicate relevancy of 35 reading and learning skills necessary to develop vocabulary, comprehend written materials, and make efficient use of study time. The teachers' responses from each content instructional area were separately analyzed as well as analyzed across items and item clusters. Widespread recognition was shown for the need to actively teach study skills to secondary students in order to maximize content learning. A copy of the questionnaire was provided in the report along with the breakdown of content instruction areas for science, math, language arts, social studies, home economics, business education, and industrial arts.

When referrals for psychological assessment have statements such as "student could do much better if he would only try......student is lazy and does little work......student hates school and wants to quit......student often cheats to get better grades......parents report students seems to try but usually fails......student 'always' studies but grades do not show this"......and similar sounding statements the question of study skill competency should be investigated. Also, when students state during initial interviews that what they need is to "do better" or "study harder" with no ability to behaviorally define what that activity means, the question of deficits in organizational and study skill areas should be considered.

Some possible causes of study skill deficit can be postulated as: (1) poor instruction or lack of adequate practice during early educational years (with many school districts offering nothing in regular curriculum areas for study skills beyond grade five or six), (2) mobile students who missed exposure to study skills in the past, (3) a misunderstanding or misuse of the skills as they were taught or (4) a lack of interest and low motivation to learn study skills when the first opportunities were offered.

Assessment and Diagnosis

The assessment and diagnosis of deficits in the areas of organizational and study skills involves the collection of information across all the current content areas being attempted, a scanning of past achievement results and study tactics, and perceptions of the student along with those involved in educational programming such as the school counselor, parents, teachers, and other support personnel. It cannot be overstressed that accurate and specific data must be derived from information collection because vague diagnosis often leads to misdirected remediation efforts. The duration of the problem may be determined from an examination of the student's cumulative folder in addition to student self-report, verified by former instructors if possible. Parents are also a source of information, but their reports must be treated with caution because, by the secondary level of education many, if not most, parents are unaware of educational demands and teaching styles because many different instructors are involved.

Another issue of great importance is study skill deficit severity. This can be divided into two general patterns: general skill deficit and specific content-area deficits. For example, students could be considered to have a severe deficit if they consistently failed to set priorities and therefore seldom had thorough work turned in promptly for any class (skill deficit). They could also be considered to have a severe problem if, in the vocabulary-rich content areas of science and social studies, they failed to attend to the importance of mastering terminology (content deficit). In the former case an across the board approach would be needed which would be applied to all areas, whereas in the latter case a more specific tactic would seem most efficient.

It is difficult to predict how long an intervention might be needed. In some severe cases an improvement in one major technique can rather quickly improve many areas, whereas a struggle to moderately improve one or two areas may have a very gradual beneficial effect. For this reason severity can sometimes be only tentatively diagnosed. A severe problem might denote a condition leading to either failure in one or two specific content areas or achievement significantly below what can be expected across all school efforts. Following from this approach, a moderate problem would involve either a one course failure or near failure or a more slight dulling of achievement results across the content spectrum. Mild problems would be considered as having study and organizational approaches which are not maximally efficient but do not lead to failure.

Sources of current information for making the assessment need to be contacted within a reasonably short time period, such as two weeks if possible, in order to assure a viewing of present behavior. Techniques such as a folder review, student interview (which may or may not include the use of additional data collection devices such as a checklist or questionnaire), and solicitation of comments from present teachers, and other educators (either by personal interview, open ended comment sheet, or structured instruments such as checklists or questionnaires) should be accomplished on a tightly controlled schedule. If a referral is made very early in the semester or year, a need to contact former teachers is essential because they may well know the student better than his new instructors. A minimum time period of two to three weeks is needed for most secondary teachers to know a student's style or to have generated even a first evaluation of his work quality. When approaching teachers and other school personnel it is imperative that they be allowed a reasonable time period of one week in which to respond to either the request for a conference with the psychologist or to complete paperwork requested. Attempts to briefly discuss results before recommendations are written and to describe the referral questions will also increase the likelihood that instructors will be cooperative and feel themselves involved. An extra few minutes to incorporate information and a courteous approach will reap benefits for the implementation of recommendations. It is vital in obtaining a sense of direction to know what has been tried by the teacher either by total class approach or in individual efforts with the referred student and what the results were of such efforts. Often a key factor in ruling out a remediation strategy would be to determine if an effort was employed for a long enough time period to have had a genuine chance to succeed. If it is determined that a sufficient trial has occurred without beneficial results then elimination should occur before compiling a list of possible recommendations.

Clusters of deficits rather quickly emerge around certain basic study issues. Once ruling out significant motivational problems, one still finds the following syndromes emerging with regularity: poor use of time and task analysis, poor approaches to written materials of all types including notetaking and outlining, poor approaches to reading materials, poor concentration which leads to good intentions and well made plans left undone, poor test items prediction and weak test taking strategies, and finally, students who seem to be extremely vague about all of these skills. Students across all intelligence ranges have been seen with the above problems with the primary difference in referrals then being length of treatment time. Motivated, bright students generally are able to respond quickly to suggestions and practice whereas slower learning students, even with sufficient motivation, need more examples and more extensive transfer and monitoring time.

A brief review of materials and techniques that can be included in the assessment and differential diagnoses process are listed on the next page under the possible providers of the information:

Questionnaire and checklists should be used with a respect for the amount of time needed to complete them measured against the need for highly detailed information. If the problem is chronic and severe and the treatment plan expected to be highly detailed, then a considerable amount of time may be reasonable, however, if the anticipated recommendations are to be in only one or two brief categories then a short form which is designed with only the specifically needed questions and answers may be preferable. Respondents seem to be more responsive if they perceive some attempt by information gatherers to make such distinctions whenever possible.

Student questionnaires should sample from several categories of study and organizational needs. Varying in length from a few questions to several pages, a method of organizing the information should be in mind before using. Several examples of self rating are to be found in the literature using discrimination from a simple yes/no format (McCabe, 1982) to one requiring a differentiation across a broader range such as a one to

SOME MAJOR CONTACTS FOR ASSESSMENT INFORMATION IN DIAGNOSING ORGANIZATIONAL STUDY SKILLS DEFICIT

Students

Personal interview

Questionnaire

Checklist

Free response to written questions

Completed work samples

Observe/listen while working on assignment privately

Classroom observation

Review of time log/study diary

Locker/folder review

Formal testing

Former/Present Teachers

Personal interview (or by telephone)

Questionnaire

Checklist

Free response to written questions

Review and comment on work samples

Progress reports

Notices/grade sheets

Review folder comments

Counselors/Administrators

Personal interview

Questionnaire

Checklist

Free response to written questions

Review folder comments

Parents

Personal interview (or by telephone)

Questionnaire

Checklist

Free response to written questions

Observation in home

Other Support Personnel

Personal interview

Questionnaire

Checklist

Free responses to regular written questions

Review of formal reports/letters in file five assignment (Beale, 1981). In some cases a multiple choice format is used (McCombs and Dobrovolny, 1980). The resulting analysis can be as simple as using the information at face value or attempting to break down the information into subordinate categories. An example of a 100 item self report inventory is the Survey of Study Habits and Attitudes (SSHA) (Brown and Holtzman, 1965). Primary scales of delay Avoidance (DA), Work Methods (WM), Teacher Approval (TA), and Educational Acceptance (EA) can be combined to derive further categories of Study Habits which includes DA plus WM, Study Attitudes which includes TA plus EA and, finally, Study Orientation which includes a summation of all four primary categories. This assessment instrument was used in an experiment to compare computer assisted instruction with class instructional methods (Gadzella, 1980) and was found to be a helpful classifier of students' study patterns.

The Study Skills Questionnaire (SSQUES) by McCombs and Dobrovolny (1980) uses a 30 item format to evaluate the self perceptions of students in areas of reading comprehension, memorization, test taking, and concentration. The instrument was used in a study to determine whether the questions could accurately predict students needing study skills remediation if used along with a simple student description of their study habits. A population of Air Force trainees numbering nearly 800 were tested and the predictive and construct validity of the questionnaire proved strong, leading to a good discrimination between those students who would be able to perform well and those who could not without study help.

Other student instruments which have been structured for uniform data collection are available (Appendix A - Note information on Appendix title page regarding reproduction procedures). In addition many other types of student questionnaires include portions concerning academic skills but with the main title of the instrument geared to areas of self concept, personality, or behavior. The reader is directed to the annotated references for other sources of student and teacher focused materials of this nature, such as those intended for teachers, parents, counselors, and administrators.

Nonstudent instruments also vary from those specifically directed towards study and achievement emphasis to a broader scope of assessment. Progress reports which could also serve as initial data collection are offered through the annotated references with a thorough effort offered by the Darien Public Schools (1980) and by Beale (1981). (Also see Appendix B).

Parent comments may also be collected through formal instruments which tend to include a broader focus than just the study skill area. Interviews with parents can be directed to this area by using some of the same questions used with students by a slight change in wording. The student question, "How much time do you spend studying on an average school night", can be altered to, "How much time does your child spend on an average school night for studying?". An interesting difference of opinion often occurs which serves as a reliability check for accurate data collection and a possible clue to misperception of the cause of study deficits with the secondary student. Free form narratives can also be elicited in oral or written form but the amount of information collected in this way is generally greater and therefore more time consuming to organize and analyze. It is always helpful, however, to ask each source at least one free form question such as providing a category of "further comments/concerns", because sometimes the most significant single piece of diagnostic information comes forth at this point and would not have otherwise because no one thought to ask specifically.

Formal achievement and intellectual test results can be extremely beneficial in helping determine the scope of the problem if they are current and if a good effort was made during the testing sessions. Much of the research completed in the study skills area has made group distinctions based, at least in part, on these factors, with overall intelligence and reading levels being the two most frequently cited.

Student observation in the classroom must be used with great caution, if at all in this writer's opinion, due to possible embarrassment to the secondary student and a total altering of the circumstances which were to be observed. Collections of work samples are, on the other hand very helpful, and can be studied away from the setting if necessary and convenient. When a new referral concerning achievement is received, teachers could be asked to save typical samples with an even greater benefit derived if the samples cross over several types of assignments: workbook pages, free style writing sheets, attempted outlining, classroom notes, math worksheets, and sample drawings. If the referral covered several contents areas, samples from each should be solicited. Along the same lines as work samples might be a trip to see the student locker for organizational skills paired with an invitation to, "bring in all of your folders and notebooks and let's take a look at how you carry your work and store it", if the student's permission is given.

A final technique that is often very enlightening is to have a student "talk out loud" while doing a short assignment in private with the psychologist; this can be selected from a current homework list, such as completing a math worksheet or writing a language arts workbook page. It is often quite obvious whether the student has adequate self coaching and productive inner messages or whether they are so vague as to be useless as a guidance system. In some cases, especially with learning disabled students, there may be a total absence of self coaching inner language which is an important diagnostic element in and of itself.

The diagnostic process is basically completed when the psychologist, along with other team members involved, can state the scope and possible severity of the problem and then begin to use this information to design intervention plans. Attempting always to create a helpful program which is realistic, includes significant others as necessary, and allows for some method of evaluation and correction should be the goal. Monitoring beyond the specific treatment period is also helpful to increase transfer of the hoped for gains. Evaluation and monitoring are also invaluable if psychologists are to grow in their own knowledge of resources, techniques, and outcomes.

Intervention

Once assessment of study and organizational deficits is completed and a need for intervention has been determined, a plan will need to be made. The scope of skills and content areas upon which to focus should depend heavily on data gathered during initial assessment. Good materials and delivery systems are available for meeting specific needs on an individual, small group, or large group basis depending upon the problem to be addressed. Examples of various intensity, duration, and specificity will be offered for consideration with the role of school psychologist in both direct and indirect positions. The role played may range from that of teacher to advisor and from counselor to facilitator. The writer has designed or collaborated in planning, implementing, and evaluating several of the approaches to be discussed. In these cases material used will be cited in the appendix. Reports from the research to be shared cited activities from educators other than psychologists, but in most cases the strategies could be amended for usage as needed.

General Background

In a discussion of what study skills are and the difference that knowing how to study can make (Wilcox and Wilson, 1979) three major components were recommended for intervention: memory, comprehension, and problem-solving. Helping students remember and understand in order to invent solutions to problems entails the mastery of subskills which could be presented conceptually and then practiced for facility. The conceptual outline and definitions of the subskills are well defined in the Wilson and Wilcox article. For example, memory strategies involve attributed meaningfulness, organization, association, visualization, and attention. Specific strategies using these attributes are offered through examples. Sources for teaching and counseling materials are listed but not directly provided.

A second attempt to devise an overview of what components should be included was made by Towle (1982) and directed at analyzing the sequential stages of study. The stages of processing, organizing, rehearsing, and recalling/applying information are suggested. Competencies are required under each category. Underlining, listing, notetaking, outlining, questioning, and summarizing are all included under the stage of organizing information. She suggests that learning disabled students may need highly specific teaching and modeling of each competency in order to incorporate it as a learning tool in content areas. Each competency is then further analyzed into separate skills such as underlining being subdivided into the identification of main concept, key terms, supportive details, and signal words. Actual teaching materials would need to be devised in order to provide exposure and practice for each splinter skill.

General Approaches

Direct Methods

Individualized sessions. The most individualized intervention strategy is using a one to one approach. When organizational and study deficits are serve or attention span is very short, such concentration at the beginning of counseling may well be the most efficient. Eight such individual efforts over a three year period were made by the writer, and included students with intellectual estimates ranging from 80 through 135 when assessed using either the Weschler Intelligence Scale for Children-Revised (Weschler, 1974) or the Weschler Adult Intelligence Scale-Revised (Weschsler, 1981). A complex of needs seemed to emerge and cluster around several basic diagnostic issues: (1) quality of study time, place, and amount, (2) quality of task analysis and scheduling, (3) quality of active involvement with text and lecture materials, (4) quality of organization for later recall, and (5) quality of test preparation and test taking strategies.

Materials and methods to teach and provide practice in these five areas were sought from various sources and, in several cases, gradually rewritten to meet student needs. A description of the use of materials for each session was written in late 1982 at the request of other Area Education Agency support personnel, and the development of small and large group suggestions added by fall, 1983, in preparation for an area wide inservice day. The overlay of suggestions for material usage includes time estimates for each component and the number of sheets needed for each student. Activities deemed the single best approach per session are so indicated. However, the components most meaningful for each student's case may vary. Follow-up and practice are invaluable to mastering a skill and should be included for maximum benefit. Students sometimes showed good insight in modifying materials to their own specifications and individual style. Use of all components per session was calculated to take approximately the length of one class period. Student worksheets are presented in Appendix C. (See pp. 14-20 for plan)

During the one to one sessions, all components were used with appointments scheduled before of after class hours. Consistency was facilitated by having the same meeting time and place each week. Of the nine students originally counseled using this approach, eight completed the series with one case discontinued after two sessions due to lack of student interest and participation. All examples used and "homework" generated as follow-up were applied to the students own mainstream coursework. Students did not perceive this effort as being, "another course to take", (from self reports) and for this reason the motivation was average to high.

When reading skills are solid and motivation is high a guided reading through a booklet or book might be worth pursuing. An excellent brief summary of basic study skills entitled How to Study Workshop (Zerox, 1965) could be discussed in one or two sessions with provisions to practice each skill discussed in the text. The psychologist or teacher would need to

Inservice

Realistic Approaches to Teaching and Modeling Study and Test Taking Skills for Secondary Level Students

Joan E. Kuepper
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The materials listed below are incorporated into a plan for a five session counseling/teaching format. In many cases follow-up on suggestions is proposed for maximum benefit, but this could be eliminated if time would not permit. Some of the worksheets below have been developed by other sources and are not presented as original material. Other sources are cited when known.

These are specific, simple information sheet/sample formats for students needing help in the following areas of study skills.

Session 1:	How to Use Study Time	Worksheet
	Time Log	1
	Time Robber Analysis	2
	Making a Schedule	3
	Time Management	4
	Time Estimation	5
Session 2:	What To Do When Studying	
	Time and Assignment Planning Schedule	6
Session 3:	How to Organize Needed Information	
	Textbook Usage	7
	Explanation of PQ4R Method	8
	Who, What, Where, When, Why	9
	Notetaking (2 sample formats)	10, 11
Session 4:	How to Remember Information	
	Memorization process	12
	Specific Memory Strategies	13, 14
Session 5:	How to Prepare for and Take Tests	
	Factors Influencing Failure	15
	Test Taking Preparation	16
	Taking Essay Exams	17
	Taking Objective Exams	18
	Post Test Assessment	19

FIVE SESSION PLAN FOR INTRODUCING STUDY SKILLS

-materials needed for each student ( )	I-see individual method S-see Small Group Method
Session One	**Component Choices (minimum time needed)**
Introduction and Making Good Use of Study Time	1) Generating a time log (5)
	2) Completing time robber analysis (10-15)
	3) Preparation for making a schedule (15)
	4) Accurate time estimation (5)
Session Two	
How to Decide What to do When Studying	1) Follow-up from session (1) (20-30)

Proposed Methods for Teaching/Modeling

Individual	Small Group (2-4)	Large Group
Explain the log and request completion for 3-5 days by session 2 for reviewing (#1)	I but each student reviews on their own/ use volunteer student reports for session 2	S
Explain material on the sheet—have student "estimate" and then discuss give student a blank sheet to accurately complete for reviewing in session 2 (#2—2 sheets)	I but each student discusses only one example during session 2	S but use volunteer student reports
Explain and discuss material on the sheets-offer a blank time log to design a tentative schedule for review at session 2 (#3, #4)	I but each student discusses more generally during session 2	S
Preview sheet and request student to use for 2 or 3 assignments in various subjects for reporting back at session 2 (#5—2 or 3 sheets)	I but each student examines own examples during session 2	S
Depends upon components used—examine, discuss, and evaluate results-suggest improvements and continued use with modification.	I but either use volunteer reporters or randomly select reporters—strive for individual commitment.	S

-materials needed for each student (·)	I-see individual method S-see Small Group Method
Session Two continued	2) Identifying goals for specific time periods and using task analysis for each specific step (15-20)
Session Three	
How to Get Required Information	1) Follow-up from session 2 (10-15)
	2) Textbook usage (30) using the PQ4R Method
	3) Notetaking (10)
Session Four	
How to Remember Material for Testing/ Later Usage	1) Follow-up from session 3 (20-30)

Proposed Methods for Teaching/Modeling

Individual	Small Group (2-4)	Large Group
Explain goal concept and have student generate goals for the week's review in session 3 be prepared to suggest ideas if student cannot generate on own then have student translate each individual goal into steps as shown on the sheets and review usefulness in session 3 (#6).	I, but circulate among students to give individual suggestions as needed as time allows	S
Depends upon components used—examine, discussed, and evaluate results—suggest improvements and continued use with modifications.	I, but either use volunteer reporters or randomly select reporters strive for individual commitment.	S
Have student bring one of present textbooks and guide student through flow chart and PQ4R system—give examples of outlining—request to see sample outlines for session 4 (#7, 8, 9)	I, but have use no more than 2 different textbooks.	S, but limit all to some textbook
Explain and give examples have student choose a format and use for at least one subject area which will be reviewed in session 4. (#10, 11)	I, but when reviewing for session 4, perhaps let students compare results if they have the same class or volunteer responses.	S
Depends upon components used—examine, discuss, and evaluate results—suggest improvements and continued use with modification.	I but either use volunteer reporters or randomly select reporters—strive for individual commitment.	S

-materials needed for each student ( )	1-see individual method S-see Small Group Method
Session Four continued	2) Discuss total memory process (20-30)
Session Five	
How to Take Tests	1) Follow-up from Session 4 (15-20) 2) Discuss general factors influencing testing situations 3) Preparation for testing (15) 4) Taking a test (5-10) 5) Analyzing test results (5-10)

Proposed Methods for Teaching/Modeling		
Individual	Small Group (2-4)	Large Group
Use flow chart and refer to organizational plans and specific strategy sheets as indicated on flow chart. Give examples and then request student to give examples—select one strategy to use for a current effort and report back at session 5 (#12, #13, #14).	I, except have students try different strategies and then share information as volunteers.	S
Depends upon components used—examine, discuss, and evaluate results—suggest improvements and continued use with modifications and suggest trying a different strategy for next efforts until 3 or 4 methods are comfortably understood—help with examples when needed.	I, but either use volunteer reporters or randomly select reporters —strive for individual commitment.	S
Interview sheet and discuss with students than suggest changes needed by student (#15).	I, but suggest changes through group discussion.	S
Discuss and encourage recording—review terminology and answer questions (#16).	I	I
Discuss strategies for each type of test and discuss relaxation. Have student plan to report back at random following tests if needed (#17, 18).	I	S
Encourage completion of checklist following next tests in each subject area for students own self-examination (#19-5 or6).	I	S

emphasize transfer to presently assigned work for maximum benefit. Skills not needed by the student could either be deemphasized or entirely eliminated thus saving concentration and time for the most needed techniques.

Comprehensive books devoted to study skills for high school and college students with adequate reading skills are available if needed for more extensive references such as How To Study (Maddox, 1963) intended for personal reading. When using such books students may need substantial help in selecting passages and additional support for trial of skills. Data and suggestions presented in such books could be useful in providing background information for the psychologist when interviewing students about how they study and when making recommendations for change.

Computer assisted programming is available for a one to one focus through a program entitled CASSI (Sampson, 1981) an acronym for Computer Assisted Study Skills Instruction. The series consists of twelve lessons emphasizing specific and effective study skills through reading at a fairly high level. A true-false and multiple choice format is used to test conceptual understanding of facts about studying. The target audience for such a format is seen as upper level or older high school students along with students in degree level post high school programs. The counselor is seen in the role of facilitator in guiding selection of materials for actual practice. Such materials are not provided nor is advice on how to use them, but further references are given following each lesson. Sampson, as developer, cites research supporting the efficiency of such teaching and the positive feelings generated by interaction with the computer. It would seem, however, that the level of delivery and the lack of concrete practice would limit its useability with lower functioning students with weak reading skills.

Small Group Sessions. A decision to pilot a five session counseling group was made arbitrarily due to to this psychologist's limited time, a pressing need by several students, and the desire to implement a newly proposed format. Assessment in preparation for forming a small group for treatment of organizational and study skill deficits was completed by resource teacher nomination. The students included were being served for learning disabilities, behavioral disabilities, or mild mental disabilities one or two periods per day. The same materials selected for instruction with individual cases were now employed with 15 students in three groups ranging in size from four to six members. Using this method, mixed grade levels were allowed, but an effort was made to keep students from grades 11 and 12, and grades 9 and 10 separated, for both morale purposes and transfer to required coursework underway during the sessions. Students were scheduled for sessions once per week for one class period (55 minutes) over consecutive weeks. Classes forfeited during these weeks were study halls, students centers, or resource room instruction. The four resource teachers had met with the school psychologist to review the counseling plan and proposed materials. They recommended students who, in their opinion, could most profit from additional help in these areas. A majority of these students had been individually evaluated for placement or reevaluated during the previous 12 month period. Effort was made to eliminate students who showed low study motivation. The location of the sessions was a resource room for two of the groups and a counseling office conference room for one group. The psychologist took final responsibility for student selection and scheduling using individual student daily schedule cards and grade designations. (See appendix D) A parent letter was written for teacher use (See appendix O) "Homework" was entirely received and reviewed by this psychologist and a final generalized evaluation (no grades were used) provided to each resource teacher for inclusion in the Individualized Educational Plan for each student. (See appendix, E) A concerted effort to schedule a make-up session each week was made but not entirely completed for students absent on counseling days. Two groups met on one day using periods one and six and one group met on the following day using period three. All groups were scheduled for the same session each week thus greatly facilitating the copying of needed materials and tracking of sessions and materials missed by each student (See appendix F). The sessions began in mid November and were completed just prior to Christmas vacation.

Evaluation of results was completed by estimating the quality of transference to on going mainstreamed classwork, student comments, and subsequent grading by regular teachers. Using this plan for an evaluation of the total effort it was concluded that one student showed little or no effort/improvement, seven showed improvement in two or more of the five basic areas, and seven showed seeming enthusiastic improvement in at least four to five areas.

Another style of small group work was employed by a middle school counselor (Beale, 1981) by using a student self rating inventory on study skills viewed against a list of "good study ideas" generated by group discussion with the same students at another session. Practice was given in identifying good versus bad study habits with encouragement to employ effective habits discussed during the five 45 minute sessions. Evaluation of the project was reported to be positive by all 43 students participating and the 32 parents responding on the parent evaluation form. Periodic rechecking with teachers beyond the time period of the sessions was projected for the future. Several rating sheets and forms were included for consideration. A psychologist-led group effort with new referrals having academic concerns might well be formed using a similar approach and materials.

A student workshop entitled Getting Organized (Soper, 1982) is another tool that could be used as a basis for small group or one to one counseling for middle school students. Humorous drawings and examples are a part of the format which offers simple practice exercises geared to expose students to planning, organizational, and help seeking skills as well as basic study skills. Several sessions could be used to cover the book in the order presented or specific topics could be selected for practice, with the student directed to complete the other pages under the supervision of others or on his own for a review with the psychologist at a final meeting.

Large group sessions. Assessment and instruction in study skills for a large group, an entire class, was molded with students in a remedial social study section composed entirely of students who had previously failed the required coursework. Following a teacher interview to determine what study and reference skills would be most important, a proposal was prepared by this author in written form and submitted to the teacher offering choices of format (see Figures 1 and 2).

The reference skill assessment sheets utilized were from the Brigance Inventory of Essential Skills (Brigance, 1981) and included evaluation of the students use of the dictionary, library card, indexes, encyclopedias, and graphs. In addition to these sheets, a reading comprehension selection for grade level 10 was used as well as one page from the course textbook.

The instructor chose Plan A which was then implemented. The first 10 to 15 minutes of class time was employed each day. Sessions began with the instructor stressing both usefulness and direct application of the specific skill focused upon for that day. The psychologist then distributed individual skill sheets and gave group instructions. Scoring and recording of results was completed during the remainder of that class period by the psychologist.

A score of 70% accuracy or lower served as a risk indicator for each specific skill area. Risk indicators were tabulated for each student as daily scoring proceeded. An error analysis was completed for each skill item as well (See appendix E) in order to gain insight into which reference skills were most problematic for these students. The information was then utilized for teaching purposes through study/reference examples in the social studies area.

The reading comprehension test was intended only to assess comprehension as tested by the Brigance. No time was available to pursue reading levels more specifically than a definition of "at risk on the Brigance passage at 10th grade level", therefore diagnosis of individual severity levels and error analysis were not attempted.

The reading rate assessment was paired with a teaching session. Reading rate was calculated using a 100 word passage selected from the text. A copy of the page was provided to each student with instructions to turn over the sheet only when the signal was given. Each student then raised his hand at the moment of completion. Time in seconds was recorded on a seating grid scanned by the teacher, a helper, and this psychologist with specific locations on the seating grid designated for each recorder. Once read, the passage and the remainder of the entire page was reread with attempts at underlining made by each student. The students then were given a chance to compare their underlined choices with a sample (given on an overhead projector) which had been prepared by the teacher and psychologist. A brief rational for choices was given for each example. This same strategy was then used for highlighting. No individual assessment was made for underlining and highlighting skills, but students were allowed to keep their trial sheets for later self review.

Figure 1. Possible format for implementing social studies project

Plan A

Day	Skill	Class Time Needed
1	Assess Dictionary (D)	10 minutes
2	Assess Library Card (LC)	10 minutes
3	Assess Index (I)	10 minutes
4	Assess Encyclopedia (E)	10 minutes
5	Assess Graphs (G)	10-15 minutes
6	Assess Reading Comprehension (RC)	10 minutes
7	Assess Reading rate (RR) and teach underlining and highlighting	15 minutes
8	make-up testing by teacher	as arranged
9	make-up testing by teacher	as arranged
10	make-up testing by teacher	as arranged
11	Teach skills for D, L, I, E, and G	50 minutes
12	Teach outlining for RC	30 minutes

Figure 2. Possible format for implementing social studies project

Plan B

Day	Skill	Class Time Needed
1	Assess D, LC, I, E and G	50 minutes
2	Assess RC and RR teach underlining and highlighting	30 minutes
3	Make-up testing by teacher/completion of scoring by psychologist	as arranged
4	Make-up testing by teacher/completion of scoring by psychologist	as arranged
5	Make-up testing by teacher/completion of scoring by psychologist	as arranged
6	Teach skills for D, L, I, E, and G	50 minutes
7	Teach outlining for RC	30 minutes

Make-up testing for all skill areas was conducted by the instructor using the standardized procedures but making her own arrangements for time. Make-up testing was completed prior to teaching sessions and make-up teaching sessions were considered to be the sole responsibility of the instructor once she had helped team teach the original set with the psychologist.

Overall test results were shared privately, with each student receiving a report sheet with results given in percentage of correct responses. Risk areas were indicated with a circle. The instructor received the list of results, error analysis, and report back sheets at a separately scheduled conference away from the classroom (See appendix E)

Groups for teaching identified through the testing sessions, were announced by title. Teaching sessions lasted approximately 10 minutes per specific skill. A study hall format was used by the teacher for the two instructional days and students not designated at risk were allowed to read rather than attend to instruction. One class period was consumed covering the first five skills areas while outlining was taught in one 30 minute session to students with risk level reading comprehension scores. The text passage used for underlining and highlighting was again furnished in newly copied form along with the next two pages from the text. These pages were used as an outlining example.

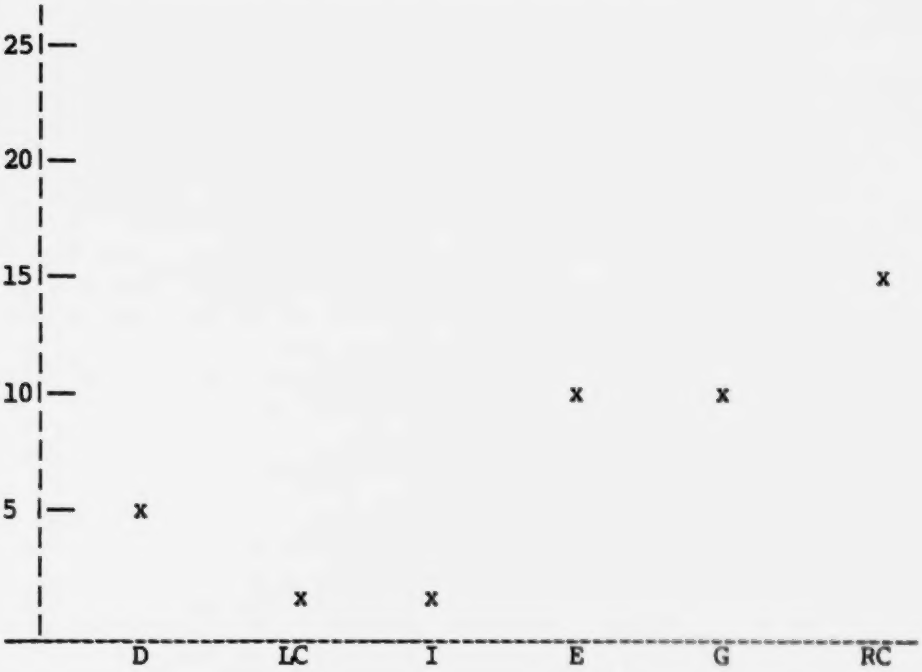
Of the 21 students evaluated in this project only 1 student was advised to attend all teaching sessions. Results are shown on the following page.

The plan for evaluating results for this effort was left up to the classroom teacher. Suggestions for possibilities were made by the psychologist. Grades on individual projects and test results were informally used as indicators. Of the 21 students enrolled, 3 failed the course for a second time with some indication that lack of effort rather than lack of skills was involved. Assignments requiring the use of each skill were already a part of the course plan and a scanning of those results were "fairly encouraging", according to the instructor.

Another large group approach that was employed with students was related to deficiency notices. Most secondary schools provide periodic deficiency notices for student and parent consideration. Various categories are indicated by the teacher where students might benefit from improvement. These categories are somewhat vague, by design, in order to be useful for large population usage. No specific "to do" behavioral strategies are given. The usefulness of such notices obviously varies depending upon many factors such as student motivation, parental support, and follow-up by teachers, however, it was hypothesized that precise behavioral instructions given in a simple format might magnify positive results for some students.

Table 1

Number of Students At Risk By Skill Area (N 21)



D-Dictionary Skills

LC-Library Card Skills

I-Index Skills

E-Encyclopedia Skills

G-Graphs Skills

RC-Reading Comprehension Skills

The teaching sessions content consisted of examples generated by the instructor using social studies material for each item of the individual Brigance assessment sheets. The items were presented with questions allowed after each item, while attending to maintain a 10 minute limit per skill area.

A group of "high risk for grade failure" eighth grade students were identified based on both first semester grades and third quarter notices. Deficiencies across all curriculum areas were scanned by the counselor and principal. Level of risk was determined by an impending recommendation for retention based on two or more failures in content areas. Fourteen students were selected for an intervention attempt. Each student was seen privately during a conference scheduled by the principal with this school psychologist in attendance to serve as a resource person. During the meeting, lasting approximately 10 minutes, the principal reviewed the student's yearly academic record to date. An attitude of warning with support was offered along with an interview as to the student's reaction to specific notice categories: for example, "do you agree that much of your daily work is late or incomplete as your science teacher has checked?" Similar comments from more than one teacher were noted in order to reach a point in the conversation where the statement, "what can be done about this starting today," served as a shift in emphasis from past to future orientation. The school psychologist helped pinpoint specific behavioral strategies that have been successfully used by other students exhibiting a similar deficit pattern. The student was dismissed with the understanding that a parent letter would be prepared summarizing the conference and listing the individualized behaviors recommended. A copy of the letter was reviewed the following week on a one-to-one basis with the school counselor as a follow-up. It was then dated and signed by the student and placed in him cumulative folder (See appendix F).

Parent letters were processed using a form approach with a printed, individualized student recommendation sheet attached. This was prepared using an Apple Word Processor with a "menu" of behavioral choices generated by this psychologist. These were based on insight gained from past study skills counseling, utilizing data gleaned from listening and participating in the student interviews, and task analyzing subskills needed for corresponding notice categories. (See appendix L). No list of recommendations was longer than one page. Each list contained at least one specific recommendation for each notice received. Students interviewed had at least two notices with many having up to four or five. Knowing well that seemingly similar student failures can result from different behavioral actions, the primary effort was placed on carefully diagnosing exactly what was the pattern in a positive manner. A commitment to immediate change was requested upon the conclusion of the principal and psychologist conference as indicated by such closing comments as, "when you walk through the door you can already feel better about this because you have helped decide what needs to be done and done from this moment forward".

Evaluation was attempted through further contact by principal, counselor, and this psychologist (in cases where an active referral was on file) within the two week period following the total procedure, especially if indications of negative behavior continued. Of the 14 identified as high risk for failure two were retained.

Indirect Methods

Indirect methods of improving general study skills can lead to psychologist involvement with educators in many roles. One step removed from the students are methods involving teacher inservice either in groups or on a more individualized basis. Once a set of materials had been developed, along with an overlay of component choices, an inservice was first offered through an Area Education Agency Inservice Day involving 13 school districts. The session was scheduled for one and one-half hours with the focus being a "working through" of the five session format. Time was available to briefly examine each student sheet and model how it could be used in the three possible settings: individual, small group, and large group (see pages 25-29 of this chapter). The overlay sheets were given to each workshop participant, but the packet of materials referred to were distributed on a one set per building basis placed in a folder to be checked out from the library. (See appendix C) Participants from nine school districts have received materials which have gone primarily to middle school and high school settings. Both public and parochial systems have been represented.

The inservice emphasis to revise suggested materials to meet individual system and student needs is heavily stressed. By soliciting questions from the participants, a few examples of so doing are offered. At this writing there have been three inservices offered to mixed groups of teachers, counselors, and administrators, in addition to one for teachers and aides only, one for high school counselors only, and one for Area Education Agency support personnel. Requests for additional materials and questions concerning the use of such are received on a regular basis as follow-up to these sessions is continuing. Two workshops have been scheduled for the 1984-85 school year thus far, and information generated in writing this chapter will be incorporated in various ways.

Using the top page of the overlay sheets, a cover letter to teachers on an individual basis was written which offers them a chance for review of the study sheets housed in the school library. (See appendix G) If interest was indicated, the remaining three pages of the plan were delivered to the faculty member's mailbox along with an offer to briefly provide advice on how to use the materials. Two such requests occurred based on a trial letter to a limited number of teachers (11). A plan is underway for the 1984-85 year to deliver the letter and top sheet to all faculty members in one middle school with a student population of 500 and one high school with a student population of 1,750 during the week preceding the beginning of classes for the year.

Additionally, the inclusion of study skills in a speed reading course will occur at the high school beginning in the fall of 1984 due, in part, to the interest of an English teacher who attended the Area Education Inservice and found the materials to be helpful. She has long believed in the need for such study help from her observations in teaching an individualized reading course. In the one semester course, approximately nine weeks will be devoted to the indepth teaching of study skill techniques which are discussed in this chapter.

Study skill programs for all students in a given system within grade brackets can be developed in great detail by school districts. An example of such a program is the Basic Skills Guide for the Prince George County Public Schools in Upper Marlboro, Maryland, (1980) devised in separate publications for grades kindergarten through six, grades seven through nine, and grades ten through twelve. Curriculum strands in many skill areas were implemented through several subject areas. A yearly calendar of presentation for each strand was generated for faculty use. These materials, used with referrals for specific content areas, could prove helpful to psychologists addressing recommendations in various subject areas.

Another example of a total population approach is the Darien Public Schools (Connecticut) Junior High School Study Skills Program (1980). The goals of this program are to expose students to nine areas of studying and organizational competencies through their regular classroom teachers. Skill areas and general work habits are specifically and concretely taught in a belief that many junior high students will not be able to independently learn such skills at a rate fast enough to keep up with average to faster paced content delivery. Well designed practice materials to help build transfer to content areas are incorporated into the concise suggestions.

The Cherry Hill Study Skills Program (La Marca, 1981) was created as a total system devoted to developing nine specific skills needed to recall and retain information. The Cherry Hill program philosophy (LeVoie, 1980) is that by junior school most school districts are teaching only content and no longer devoting specific efforts to teaching learning and studying processes. Many students will not have mastered such skills by this age and with no further exposure will never have such a chance. The Cherry Hill Project attempts to help restore a balance between process and content for middle school students.

Using instructors with a training emphasis in remedial and special education, other school districts have also employed study skill teaching approaches with sizable numbers of students. Special education teachers in Delaware County Intermediate Unit Handicapped Childrens' Model Program-Secondary Level (Adelman and Emslie, 1982) use a three strand curriculum approach collectively entitled School Survival Skills. The focus is on behavior control, teacher pleasing behavior, and study skills. Sequential stages of demonstration, practice, and generalization for lessons and a gradual pace are proposed for each strand using a design well suited for individualized education planning. A format for the design includes four steps for the inclusion of each activity: (1) practical rationale for activity, (2) how was the activity individualized, (3) how well did the activity work, (4) how can monitoring of the activity continue beyond the special education setting. The study skills strand has several behavioral objectives listed in a competency based format for ease in evaluation. Helpful record keeping and planning graphics are employed. Such materials could be referred to by the psychologist directly or as a resource person to a teacher undertaking selected skill lessons from such a program.

A completely different wide reading effort would be to involve young peers as the primary delivery system. Two proposals using student leaders to approach the general student body are presently in progress. The first is a regularly scheduled column in the widely read high school newspaper which is published every three weeks for 13 editions per year. Such a column is proposed to carry a distinctive logo with different interviewers and writers for each segment, perhaps using a question and answer format. Correlating heavy emphasis areas with timely issues might help increase readership. The journalism students and artists would be given freedom to decide on publication details with accurate and concise information made available to them from materials cited by the writer in this chapter. Possible topics have been generated for the 1984-85 issues allowing time at the beginning of the year for designing of the format and a possible end of the year survey evaluating the usefulness of the effort (See Appendix H).

Another project which would employ students working with students is a very brief weekly study hint offered via school central sound. The proposal has been prepared suggesting the same student being used on the opening day of each week. Coordination with a teacher in the speech and drama department is being sought for implementation. Daily announcements are also typed and posted in several locations within the high school and a second opportunity for exposure could occur then through students reading. Brevity would be essential in this effort and a collection of such "study tips, once generated, could be used for other purposes. It might be revealing to solicit such tips from students for later use with recognition by name and a small reward if used. Examples have been created to accompany the proposal.

Both the school central sound and student newspaper have experienced wide acceptance with the student body especially when other students of wide recognition or a sense of humor have been involved. There is no reason why such "public relations" should not be used to "sell" the utilization of skills leading to greater academic success. Psychologist involvement would require perhaps as little monitoring as one hour per month for both projects once information has been generated and agreement reached with journalism and speech instructors to carry out final formats with students they would choose as a part of on going student projects in their content area.

Skill Specific Approaches

Skill specific efforts have been carried out using a wide variety of techniques. In some cases the research to be reported in this section overlaps with studies to be commented upon in the content specific areas because a total separation does not occur. In such circumstances the more detailed discussion will occur in this section under skills with a much more brief comment under content.

Often students report knowing how to do a task when, in fact, they cannot (Berry and Berry, 1982). This may be true because the material was never learned well enough to be transferred from the short term to long term memory system. A challenge needs to be offered to the beginning student which will both assess the state of knowledge available and reveal to the learner that such skills are not in place as reported. Once such insight is given, the stage is set to convince the student of the systems advantages and energy for involvement will hopefully follow. Berry and Berry suggest that the more closely the pretest or challenge matches the task to be learned, the more effective it will be in convincing learners they cannot perform as well as they truthfully thought they could. The use of self inventories or evaluating a student work samples might well fit into the strategy from the viewpoint of psychologist involvement.

Praise by the use of positive feedback (Buchholz, 1982), offered throughout the learning effort is strongly encouraged for motivation. Techniques such as praise codes, notices, bulletin boards, certificates, and other avenues of a similar nature are suggested. Avoidance of the "walking encyclopedia" attitude of instructors is advocated for most "hands on" tasks and concrete learning situations (Oakley, 1982) because such information giving implies easy answers will be the norm. A better motivational approach is a supportive attitude while teaching students to find their own methods and answers. An explanation should be given along with attainment of these four goals: (1) helping students know that easy answers are over, (2) building of references skills, (3) gaining confidence in their own thinking skills, and (4) assurance that the teacher can and will help if other efforts fail.

Getting a student well started on a project and then encouraging him to complete it by himself is also a valid motivator (Civatelli, 1980). The teacher might read or direct an assignment until students are actively listening and responding and then places responsibility on the student for carrying on the task as modeled. She encourages short term assignments using topics of high interest and direct relevance as further motivation enhancers.

A comparison was made of the approaches of reading study guides (Brown, 1970) used along with class instruction and discussion versus computer assisted instruction for a well motivated and executed course on study skill teaching (Gadzella, 1980). A control group received no help other than exposure to content course materials in the regular classroom. Three completions of the Survey of Study Habits and Attitudes, (Brown and Holtzman, 1965) were required; at the beginning, midpoint, and conclusion of the project. Results reported from 250 college students showed upward score shifts for the computer assisted group and a downward shift for the control group, with little or no changes for the class instruction group.

Advance Organizers

Ausubel has stated (Ausubel, Novak and Hanesian, 1978) that "knowledge one possesses is arranged hierarchically with more inclusive, higher level ideas at the 'top' and lower-level subordinate information 'below'". When new information is to be added to this system, according to Ausubel, it must be added on a meaningful, "nonrandom", basis and then related to previously learned material in a paraphrased, "nonverbatimly", form at either a top level (superordinate), middle level (coordinate), or lower level (subordinate). He further stated that information is assimilated or taken into the system mainly through two major processes; derivatative subsumption and correlative subsumption. When new material is an example of a previously established concept the process of derivitative subsumption occurs. Such a process is thought to occur rapidly and with ease. More typically of new material to be learned, however, is information which is "an extension, elaboration, modification, or qualification of previously established concepts." This process can be slow and difficult, but can be eased with the use of advance organizers which help to "build a bridge" from the already known to the new material (Ausubel, Novak, and Hanesian, 1978).

Two major types of organizers are put forth by these authors. "Comparative organizers" bring meaning by guiding the learner to look at similarities and differences using as anchors the major concepts already in place for the general topic. If material is totally unknown with no concepts already established, an "expository organizer" is suggested which focuses on vocabulary already known but now applied to unknown concepts (Ausubel and Fitzgerald, 1962).

The use of project planning and thinking ahead about how to study have been employed by researchers using many educational frameworks and varying purposes. Diekhoff (1982) reported on how to learn needed information rather than altering the information itself to a lower level. He believes the slow learner can especially benefit from such pretraining because the set of trainable skills can then be employed in many areas and the students begin to classify themselves as enabled learners with a more positive attitude towards the entire area of teaching and learning. The pace of learning is seen as increasing once study tools are practiced to a level of proficiency. Motivation to actively participate in the pretraining of study skills must come from the idea that there is "Something in this for me" (Diekhoff, 1982). Time management and organizational guides such as a "course completion map" that allows for self charting of progress helps make efforts concrete. Small groups participated with individual conferences set to review personal graphs. A revision downward in pace is suggested if needed rather than a uniform pace where failure is allowed to occur. For slow learners, such failure will have already contributed heavily to low self concepts. Separate component activities involving memory, goal setting, self coaching for concentration, and mental imaging are given along with a reading comprehension system.

Time and scheduling for overall task completion of all types are thoroughly covered from a business teachers perspective by Ferner (1980) with several forms easily amendable to school settings such as use of discretionary time, wasting time, of self and others, distraction analysis, and weekly time analysis. Based on personal interviews, data could be collected to provide excellent insight for future efforts.

Advance organizers applied across all grade levels and in the area of reading are reported by Searle (1980) with an endorsement that giving structural overviews to students in many content areas, most especially math, science, and social studies, can help in bridging the gap between what learners know and what they still need to know. She recognizes that Ausubel (1978) has been unable to show empirical evidence supporting usage of organizers, but proposed employment of the five steps in advanced organizers suggested by Friedman and Rowls (1980) which involves the following steps: (1) statement of purpose, (2) outlining information to be learned as it relates to already mastered material, (3) definition of possibly unfamiliar essential terms, (4) a listing of learning outcomes as targets, and (5) topic outlines. It is quite possible that such a tool would help keep the instructor more tightly focused for oral presentations and testing as well.

Young middle school students were treated to a reading organizer (Dana, 1980) before, during and after a reading assignment in order to investigate whether comprehension increased in the short term as well as whether long term comprehension held at higher levels. Groups of students, 197 in all, assessed to be below, at, and above reading level were studied. The results from the reading subtest of the Iowa Standardized Achievement Test were used to classify students into groups. A control group was employed and given no special help. Students were tested immediately after task and one week later. It was reported that advance organizers increased immediately comprehension of multitheme text but not single theme text, and that delayed comprehension was stronger for all texts having used an organizer. All three reading level groups seemed to benefit to similar degrees. It would appear that help in organizing is needed more urgently when several concepts are offered and discussed and serves as a type of "blueprint". So recognizing, instructors may wish to develop such organization plans for texts or look for published textbooks with such aids already predominantly displayed and then point out the authors intent to students at the very beginning of the course. Readability levels must be within students capability for such efforts to be helpful, of course.

High School students were suggested (Jacobwitz, 1980) for guidance through skills of active surveying and skimming prior to serious reading of a selection. A framework could then be built upon which to organize incoming information which included strategies to sequentially create expectations from subtitles, ask questions using knowledge already in place, guess answers to those questions, read to confirm or reject hypothesis, and then generate new questions. Surveying was defined (Brown, 1975) in six steps; the analysis of (1) chapter title, (2) subtitles, (3) visual aids such as tables, graphs, pictures, and cartoons and (4) italicized words, and then (5) the reading of the introductory paragraph, followed by (6) the reading of the concluding paragraph. Active surveying adds to this process the goal of discovering the structural approach used by the author as well as bringing our own background information to bear on the material before reading for answers. Active skimming then proceeds focusing on key words and topic sentences later used for paraphrasing after reading. Such skills could prove beneficial for college bound students who often need to cover large quantities of material requiring a macrostructure for full integration.

In a study examining the use of text structure by ninth grade students, (Meyer, Brandt, and Bluth, 1980) only about one fifth of the students used the author's structure consistently, but students rated high in reading comprehension did use this approach. Lower level reading comprehendors did not use the system. Users recalled consistently more information and better discriminated information and semantics to be found in the text from nontext materials. McDonald (1978) found that teaching top level structure to primary students aided in reading comprehension.

A review of different forms and functions of textbooks was made by Gutherie (1981) where he comments on the interaction between the text and the reader. He quotes Rothkopf's study where illustrations are given that students can more clearly learn from and recall more efficiently from books if the information is easy to locate in the text "through clarity of purpose and salience of structure". Gutherie discusses the five possible purposes for a text as follows: (1) primary knowledge source, (2) knowledge supplement, (3) major reference source, (4) minor reference source, and (5) laboratory guide. Depending upon the purpose of the text, the style of writing and design should vary. When serving as a sole source, (purpose one), the vocabulary should be at the child's reading level or aid should be offered to easily make it such. Aids for maintaining attention are also helpful. Texts that serve in a reference format, however, are used on a shorter term and selected basis and ways to find needed information (numbers, indexes, headings, listings, and objectives to name a few) are critical. . Helping students to identify the purpose of his text and guiding him through the aids designed to serve the purpose would be helpful. Committees for text selection need to take a total look at what they are purchasing and for what purpose in the total instruction plan for a specific content area.

There are several systems of applying overview strategies to reading materials. Some have received wide spread attention with the best known probably the SQ3R (Robinson 1961) employing subskills of survey, question, read, recite, and review. These involve (1) quickly scanning the entire reading assignment, (2) turning topic headlines into questions, (3) reading to answer those questions as well as gathering supporting details, (4) reviewing orally or to oneself the new information gleaned, and (5) reviewing of the material in organized form at a later time as needed. A literature review completed in 1980 (Johns and McNamara) concluded that there was little evidence to support the positive opinions voiced concerning this method by many authors. Spache, Bergman, Earnet, Manzo, and Thomas have recommended changes in the system without much empirical evidence, according to Johns and McNamera. They did find studies (Diggs, 1972) to support superiority of the SQ3R method over a machine taught approach for remedial reading help used with college students. Negative studies they cite include one by Willmore, (1966) which found underlining more helpful than SQ3R with college students and McNamera (1977) found no significant difference using a cloze procedure or lecture discussion over the SQ3R. Using both standardized and teacher made tests for evaluation, Donald (1967) was reported to have found significantly better results on teacher made evaluations from the SQ3R and Gurrola (1975) investigated the full method in comparison to various two component sections only of the SQ3R and found the full sequence superior to any two subsets.

Sanacore (1982) discussed the PQ4R (Paul, 1962) in terms of transfer opportunities within the school system with P standing for preview instead of surveying and the extra R standing for reflect inserted between read and recite. Writing from his role as a language coordinator, Sanacore stresses the need for system wide acceptance of a reading organizer that is actively supported by administrators across content areas and grade levels. He recommends holding inservices which are team taught by specialists, department heads, and administrators to acquaint faculty with ways they can individualize the system for the most effective application in each content area.

In an article entitled How To Teach How To Learn, Diekhoff (1982) argues for a reading organizer of these steps: (1) survey the materials, (2) read until filled with information then stop, (3) paraphrase out loud or in writing of notes, (4) elaborate by thinking beyond the given information.

Manza (1980) suggests three strategies that can be applied to reading in various content areas. The Oral Reading Strategy involves pausing in oral reading segments by the teacher for questions and discussion between the leader and the group aimed at assessing comprehension. A second proposal labeled C/T/Q represents the need to isolate key Concepts Terminology, and Questions having the students take notes on C, T, and Q while reading. Finally a Question-Only technique is described where these five steps are followed: (1) an explanation of the system is given to students including the fact that a test will be given covering all material considered important by the instructor whether students thought to ask questions covering the information or not, (2) students are allowed to ask all the questions they want, but only the information questioned for is given, (3) a test is administered, (4) text is read to determine what further questions should have been asked, and (5) a second test is then offered. This would seem to be a most interesting strategy to suggest to teachers in the areas of science and social studies from this writer's viewpoint, because it could help model skills needed to use other advance organizers. A most interesting discussion is offered on how the implementing of new teaching/studying techniques evolves over time from insecurity to confidence (Manza, 1980).

Devising a system to cover general studying tactics as well as reading for vocational education Turnbaugh (1982) fosters the Twice As Smart Chart where the acronym SMART stands for Study ahead of time, Minimize distractions, Assemble materials, Reward yourself, and Take initiative and Survey, material to be read, Measure the amount of material to be covered and estimate time needed, Anticipate questions and answers, Read and review lesson, and Trace or review coverage. A brief further explanation of each subskill is given.

Another approach to reading skill areas was to schedule a series of mini-clinics (Kapinus, 1981) lasting from two to ten days which focus on splinter skills of identifying main idea, scanning, skimming, inferences, relationships, and phonic generalizations in a middle school setting. Students were excused from a variety of classes with a two week notice given in each case. An A grade was offered for attendance with participation. Homework from classes missed was not expected to be made up. Pre and post testing was used to determine effectiveness of the effort. All teachers were made aware of the clinic content in order to facilitate transfer of newly practiced skills. Further suggestions generated by Kapinus were to use peer tutors or parent volunteers who had attended and mastered the skill and to involve as clinic instructors counselors, administrators, and media specialists.

Questioning

The questioning strategies advocated in reading efforts can also be applied to oral and visual presentations other than reading. Various types of helpful questions are identified (Fedje and Irvine, 1982) as observation, recall, similarties and differences, conclusion, grouping, ordering, cause and effect, and probing. The authors suggest the use of all such question types for students in all grades and the direct teaching of such. Examples of each type of question as applied to subject area or event are offered.

The use of inserted questions received attention by Rickards (1980) using college students. Briefly, his work showed that meaningful rather than rote questions and questions offered post reading and in close approximately to the text were quite effective in increasing passage comprehension (Rickards and DiVesta, 1974). This is especially so for children having adequate vocabulary skills but low independent reading comprehension scores (Rickards and Hatcher, 1978). Rothkopf (1965) is credited with devising the interspersed questioning paradigm, either closely before or after materials in the general text.

Notetaking

Notetaking was researched by Rickards (1980). The two major hypothesis suggested by DiVesta and Gray (1972) as to how notetaking facilities learning were discussed. The encoding hypothesis is based on the idea that sifting of information in order to decide what to write down serves as a learning enhancement whether notes are then later reviewed or not. An opposing hypothesis is that the principle value of notetaking rests on its storage function for later review. Rickards states that about fifty percent of the research findings support the greater value of the encoding theory, however, the two systems together produce still more powerful results. He further reports that (Rickards and Friedman, 1978) students taking notes with an expectancy of an essay examination took higher level notes; more conceptual in nature. Evidence is available to suggest that fewer notes may be better than copious notes, perhaps true because notetaking can interfere with listening if used too heavily. Low ability learners tend to benefit less from notes when tests requiring rote recall are used (Berliner, 1971, 1972). Interestingly, spontaneous notetakers tend to use notes on higher level material than induced, or forced, notetakers (Brown and Smiley, 1977).

The most meaningful notetaking seems to occur when students are required to create notes whether mirroring the author's organization or developing an alternative structure of their own (Shimmerlik and Nola, 1976). Using notes as a summary which were entirely paraphrased resulted in the best test performance according to Bretzing and Kulhovig (1979).

Carrier and Titus (1981) studied the interaction of pretraining on notetaking and expectations for test mode based on classroom lectures. One hundred high school students were divided into thirds with one group told to expect an essay test, one group told to expect a multiple choice test, and the final third of the students told only that there would be a test. In fact both an essay and multiple choice test were given. Results showed that students expecting a multiple choice test and who had pretraining performed better than nontrained subjects on both essay and objective testings. Interestingly, pretraining seemed to depress scores for notetakers expecting an essay test who were first given the objective test. Some questions were raised as to whether these students might have viewed essay tests as simply giving their own opinion thus necessitating few notes. Lecturers with a highly organized structure greatly aid notetaking for most students.

Carrier and Titus (1980) also reviewed and discussed three possibilities suggested in the research of Peper and Mayer (1978) whereby attentional factors are seen as (1) focusing concentration when notetaking is expected leading to (2) greater energy being expended and involvement forced to determine what to write and finally, (3) greater involvement is more likely to call forth prior knowledge for assimilation with new material. Weener (1974) is cited as preferring to hypothesize that notes are useful largely because they help learners rehearse information by exposure through more than one mode and then serve as helpers for memory organization and storage.

Outlining

A form of notetaking is outlining using a superstructure for later recall purposes. Often paired as combined techniques are underlining and highlighting. Formal outlining can appear to be very confusing unless first approached from a point of adequate background information. Several simple but effective examples of such a gradual introduction are offered by Friedland and Kessler (1980) from an elementary teachers viewpoint. Similar, but slightly more sophisticated, examples could be used with secondary students or used unchanged for learning disabled students tending to have significant difficulties in organizing and categorizing. Moving gradually from entirely concrete to abstract materials could help build confidence and greater understanding for a technique which will seldom be used if it is viewed as "too hard for me to do".

Several interesting and creative styles of outlining are offered for use by disabled readers by Giordano (1980). He suggests pictorial, topical, and critical outlining using few words thus requiring little writing. Examples of each style are illustrated with the latter two most realistic for secondary use. The pictorial system involves making spontaneous drawings to help recall information. Topical outlining is taught by having students form one brief question for each paragraph using as a guide, "what is the question best answered by the information in this paragraph?" In the use of critical outlining, teachers ask one question as a preview to reading after which students identify portions of text by underlining information related to the question for the paragraph or short selection.

Taking notes from oral presentation is another major study skill. Using television news programming on the American Broadcasting System one researcher (Saint-Amand, 1980) had students practice taking notes each day from the nightly broadcast of News Today. They immediately checked their abilities to catch the main ideas and important details by switching to the public broadcasting captioned version for the hearing impaired of the identical presentation for a guideline. The fortunate timing of such broadcasts provided free material on which to practice. This medium was all the more appropriate because the students, who were in a correctional facility, were newly enrolled in a television course with no opportunity for oral exchanges with the instructor.

Underlining

A related skill to outlining and notetaking is underlining. Reporting on his own research, (Rickards and August, 1975) Rickards relates that limiting the amount of material to be underlined to any one sentence per paragraph seemed to enhance comprehension due to forcing the student to evaluate material more critically. Interestingly, even nonunderlined material was remembered better using this method rather than allowing unlimited usage. Simple materials may not be good prospects for underlining and students younger than grade six may not have comprehension sufficient for evaluating concepts, thus the requiring of underlining can create confusion and cause less comprehension within the cognition system (Rickards and Denner, 1979).

Writing Frames

Writing as a study skill was examined by Nichols (1980) as a response to the need of large numbers of students in remedial sections for help in this area. They could often adequately orally report from reading but could not organize written evidence of comprehension. A teaching technique of providing paragraph frames was used with four patterns of organization: listing, time order, cause-effect, and comparison-contrast as discussed by Heiber (1979). Paragraph frames are credited by Nichols to Uries (Uries et al., 1977) and use a fill-in approach to help organize information into the writing of readable, sensible patterns. Samples of blank forms from various content areas for high school grade levels are offered. Nichols reported enthusiastic endorsement from content teachers because, in some cases, students work became meaningful for the first time. New frames can be created as needed based on assignments with certain styles more suitable for certain subject areas; for example cause and effect for science.

Use of References

Ease in the use of references is a skill so basic to higher education that little advanced learning can occur without this tool. Middle school students are excellent candidates for a strong exposure to this area. Location skills for the content area of science were investigated by Wright and Andreasen (1980) using tasks giving practice in various areas. There were science task cards requiring experimentation, vocabulary task cards requiring dictionary usage for definition, and pronunciation, and information task cards requiring supportive information from sources other than the textbook. Supplementary books were made available in the classroom. Table of contents and index skills were directly taught for supplementary books and rudimentary bibliography was begun using title, author, and page recording for sources cited. Specific steps were listed on each card for how to complete the work independently from the teacher as much as possible thus hopefully building confidence and priority setting skills.

A campus librarian, Lubans (1980), writes of another approach for teaching reference skills based on how the learners perceive their need for information. "Teachers have been teaching content and not process while librarians have been teaching location and not usage", he states. He further observes that, "neither has been teaching techniques for learning". He suggests starting where the learners are and doing assignments in a step by step model including real life frustrations and allowing questions during the process. A key question to be asked of students is, "why do you find studying difficult" and then listening and reacting to the answers given. He maintains that teachers should strive to always teach content and study reference techniques at the same time. Such thoughts offer strong endorsement for modeling as a teaching technique.

Test Preparation and Test Taking

As one step in preparing for tests, a period of review is needed. What occurs during review should most certainly include an organized approach to rehearsal of material for specific recall or as a background for problem solving. Huska (1980) suggests a more active participation model for middle school students in a language arts class covering tedious and detailed materials. She advocates the creation of several small groups of three students each to provide class review of a specific portion of material covered. If certain portions are poorly handled the teacher takes control before the test and reviews that section herself. She cites several advantages to this style of review: (1) students become activity involved, (2) it provides a break in routine, (3) an adequate review is assured, (4) students must use speaking and writing skills which are also a part of the language arts curriculum, (5) students employ group dynamics and organizational skills, (6) creativity may be shown, (7) special talents can be used, (8) the teacher can evaluate how well concepts are mastered by students and provide the missing links before testing, and finally, (9) students gain insight into the skill of teaching and must master a subset of skills to be shared.

If there is time for such a technique to be used, even occasionally, the advantages may be quite worthwhile for students with short attention spans for material they may perceive as less than relevant. The social stimulation and ego involvement may "spill over" into the content area, especially if the review leads to improved grades.

Less dramatic would be strategies of studying with classmates of reasonable competency, however, if socialability supersedes studying then this approach might do more harm than good. Also, a caution must be exercised against one student doing all the work for several others with equal recognition for each.

Test preparation strategies and test taking skills are covered in one form or another in nearly every general or specific approach to study skills. The helpfulness of good organization, adequate time allowance, and effective questioning have already been covered in previous comments. Special approaches for the taking of each style of testing have been developed (See appendix C, 17 and 18) and are often a portion of test skill sections.

Advice to teachers about how to guide students into testing are also offered in the annotated references as well as by Foster (1982) in his article on Do's and Don'ts of Giving Tests.

The use of testing to aid reading comprehension is reported by Duchastel (1981) with results reported as positive if frequent testing is used following short lessons and selections. These results are identical when grades are recorded or simply used for students' feedback. The dynamic at work seems to be the same as that serving in adjunct post text questioning where a synthesis or consolidation of learning occurs when such a task is required. Material is also reported to be better remembered at a later date.

Memory techniques are needed in order to recall information during testing, and several different methods have been developed based on different styles of organization and purposes of study. (See appendix C, worksheets 12-14). This area has received a great deal of attention in the popular press with bookstore sections devoted to various techniques. Evidence seems to exist that several styles are effective if well used and superimposed on the key concepts of the material. Individual preferences tend to occur with successful usage and match closely to learning styles in areas other than just mnemonics.

It was suggested by Flavell (1971) that as students intellectually mature they grow in the ability to think about thinking, and in this case think about how to use memory. Through everyday experiences they become more aware of the usefulness of association in memorizing, tending more consciously to associate items during learning thereby gaining additional knowledge in how to associate, and finally develop different specific methods of association, of which elaboration is one.

In a large number of cases elaboration seems to grow as a direct relationship between pairs or bodies of information by adding already known details to the task to be learned and is one form of association learning. Pressley and Levin (1977) reported that teaching elaboration through direct methods leads to an immediate benefit in learning for all ages and showed that it is not uncommon for some younger (preadolescent) students to use the strategy to some degree if untaught or unrecognized.

Comparing groups of fifth and twelfth graders, (Beuhring, 1980) it was reported that grade related advances was a powerful predictor of whether or not elaboration would be used as a memory technique, either consciously or unconsciously. With or without an awareness of memory processes this trend appears to be true therefore, "metamemorial knowledge is neither a necessary nor a sufficient condition for elaboration."

Content Specific Approaches

Science, Social Studies, and Language Arts

The Florida State Department of Education has supported the development of total reading approaches in the content areas of science (Brock, 1979), social studies (Guttinger, 1977), and language arts (Guttinger, 1977). For each middle school content area, an entire guide has been written covering these same areas but with specialized content materials: (1) surveying the content area text, (2) outlining, (3) spelling, (4) syllabication, (5) word recognition, (6) using synonyms, (7) determining sequence of events, (8) remembering details, (9) determining the main idea, and (10) making inferences from texts.

Science

Two other studies were found which address science content specifically. The Texas Education Agency at Austin (1981) developed a design for boosting reading skills for secondary students. Aimed at science teachers, the materials include the teaching of: (1) methods of determining students reading levels using the San Diego Quick Assessment Test, Cloze Procedure, or informal reading inventory methods; (2) teaching methods of evaluating readability levels of curriculum materials; (3) methods of improving students reading skills including vocabulary and comprehension exercises; (4) methods for effective notetaking; (5) test taking strategies; and (6) questioning techniques for use in improving student comprehension.

Furukawa (1980) employed a studying model for high school science students called the Cognitive Processing Model (CPC). A prior study had shown the CPC to be useful in teaching prose (Frukawa, 1977). The CPC was defined as a measure of processing level (innate and acquired). The CPC restricts the amount of information a student can handle at one time before a review is necessary. It was theorized that either too much or too little information to be processed led to less than possible learning levels. Once a learner felt his capacity to be "filled" the information was to be processed into a "pyramid of knowledge" which is incorporated into a "chunking study outline". (CSO). The CSO only uses content composed of chapter and section headings, paragraph subjects, and key sentences, but formal number and letter designations are used. Each line of information is treated like a discrete unit and the learner limits processing to only a few items at a time before rehearsing with a review. When teaching of the system was employed with tenth grade students they were able to learn the system and successfully use it throughout other chapters. Additional skill facility continued with practice and was further enhanced by the teacher modeling the same procedure. There was a positive correlation between CPC usage and biology test scores.

Social Studies

The Social Studies content area was approached by Afolabi (1979) with techniques directed toward proficiency in reading, thinking, and study skills rather than an over-focusing on the teaching of rote learning of facts, dates, and related information. Skills considered to be of special importance for this area were: (1) effective questioning, (2) data gathering, (3) time and space relationships, and (4) recognition of the differences between facts, opinions, and propaganda.

Graphics

A plea for the direct teaching of graphic literacy was made by Fry (1981). Holding that increasingly, information will be summarized in various groups, students need to be taught more systematically to handle this nonverbal or sparce verbal skill area of communication. An illustration of the taxonomy of graphs (Fry) is provided including the major headings of lineal, quantitative, spatial, pictorial, hypothetical, and omitted. Each subcategory is well defined in the taxonomy. Levin (1976) was cited as having proven that students of all ages remember pictures better than names for objectives. Fry advocates that reading comprehension building techniques typically applied to prose could easily be applied to graphs as well and that reading instructors should be doing so on an increasing basis. An example of this would be to ask guiding questions such as, "what is the main idea of this graph or map?" or, "what is the purpose of these supporting details?". Moving from merely comprehending graphs, Fry advocates that students should be encouraged to create graphs to summarize reading findings whenever appropriate and suggests motivators such as grading graphs, encouraging many types of graphs, using graphs on chalkboards during lectures, using texts with good graphics, and including reading comprehension questions on tests from graphs. He points out that only one category of graphs is quantitative and yet that is the only highly used form by students. With computer usage in the classroom graphics will be increasingly focused upon.

Math

Devine (1979) placed specific study attention on the area of math. Five areas of subskills are identified and discussed: (1) teaching of specialized vocabulary, (2) demonstration of math symbol systems, (3) providing practice in graphics, (4) giving practice in recognizing unstated assumptions, and (5) making use of common patterns in math textbooks.

Art

Art instruction was discussed by Peragallo (1981). She set forth the special skills needed as follows: (1) following directions, (2) vocabulary development including pronunciation and spelling, (3) interpreting illustrations, (4) reference materials, (5) notetaking, and (6) use of flexible reading rates. She emphasizes the need for posted directions for independence from the instructor within the classroom or workshop. The recommendation for a Directed Reading Activity as a facilitation for notetaking was made and illustrated within the article. Briefly, the teacher previews an assignment by giving background information and then states a purpose for the assignment to be read. Following the rules, a summation and review are completed by the student. Before reading, she encourages teachers to make distinctions between materials needing skimming (specifics needed only about major topics) and scanning (where very specific details are needed about highly specific topics). Employment for these six study suggestions would seem to have benefit for any course where project oriented instruction occurs and a concrete "hands on" approach is needed.

Monitoring Methods

A great deal can be gained from the follow-up of any study skills effort. Evaluation upon completion needs to be supported by a longer term monitoring system that is manageable and will provide data for both possible changes in strategy for individual students already seen and the design for intervention planned for the future. To that end several comments concerning efforts undertaken by this writer need to be made at this point.

A number of changes are being planned for a continuation of the small group resource level approach for the upcoming year. A grade level separation for participants will be sought such as ninth graders only, tenth graders only in order to make study assignments for notetaking, outlining and test taking skills highly specific in application. Transference to mainstreamed materials will be more directly planned by both the use of identical assignments and the issuing of grades (by the resource teachers) for assignments made in the various counseling sessions. Worksheets will be directly listed under materials in the Individual Educational Plan with teacher commitment to make similar assignments using each format on a regular basis. This is essential for at least several weeks in order that practice will be guaranteed and effort promptly rewarded by grades.

The timing of the sessions will be moved to the beginning of the first week of second quarter in order to maximize time remaining to benefit from the training while still leaving adequate time for needs assessment and student selection. It is hoped that student motivation to participate will also be strong having just received first quarter grades. A communication to parents including a need for their signature is also prepared in order to seek their support and comments. (See appendix I).

In retrospect, when evaluating the large group classroom approach for assessment and brief exposure to reference and study skills, it was noted that many of the students chose to attend to all teaching sessions, therefore, considerable time could have been saved by simply offering short lessons on each area without making a specific assessment of individual weaknesses. Indeed, since this project was completed, that has been the participating teacher's tactic with all remedial class sections. The insight as to the need for such help was gained from the initial project, however, and makes the time and effort well worth doing again in another content area to provide the same opportunity for teaching learning. Fortunately, material for teaching in the area of social studies has been generated for use again later on. Testing material in the area of graphs was judged to be inadequate by scoring standards suggested by Brigance, therefore alternative materials may need to be considered for use in Iowa schools.

A summary of evaluation observations concerning the large group, notice based effort led to the suggestion that the school counselor could use the approach alone with materials now available or with the additional new materials now designed. The process could be applied to any secondary grade and any notice period. The "menu" of behavioral recommendation choices is now available in coded form so that a check off system could be used during the interview and the typist could print only the needed behaviors for each individual student in a manner as to provide well timed follow-up.

If begun earlier in the academic year, monitoring could easily be afforded through later notices or lack of notices from the same subject area. In some cases, such discouragement had occurred by the time the original project was attempted that in one or two cases little initiative was seen as "worth it" by the students in spite of encouragement offered that it was "not too late" to reverse the failure trend.

An additional idea for monitoring and evaluating is to employ a teacher rating sheet two or three weeks after the issuing of the letter and interview. Such a follow-up note to teachers is now available (See appendix J).

Emerging from the interviews, two additional formats have been generated as a part of future organizational efforts for students. A sheet to be carried for recording and accounting for assignments missed during absences will be available to all students next year, and will be required for students who demonstrate a lack of follow-up or confusion over this issue (See appendix K). A flow chart to use when interviewing students about how they organize their time and energy patterns during the school day has been added in order to visually "map" the day in terms of materials and classes taken. (See appendix L). A need for revision in the daily plan can be discussed during the interview with a proposed change completed in writing for later reference.

In many instances well planned assessment efforts can facilitate evaluation and monitoring by using similar formats in a shorter form. Team members available to be included in the effort also depends, in part, on who was included at the outset. If everyone involved in the total process understands why and how the recommendations were made and what the desired specific outcomes are, then the students will greatly benefit.

Conclusions and Considerations

"If one thinks of education itself as a mixture of content (the subject area) and process (the means by which the content is acquired), the reason for a study skills program becomes clear." (LaVoie, 1980, p. 8). In agreement with this statement it would seem that the school psychologist's contribution to the process would vary from case to case and from situation to situation. Both direct and indirect approaches have been described in this chapter as have efforts ranging in time and effort from a few hours to commitments much greater than that by students, supporting team members, and psychologist. Many of the projects included involved regular and specialized teacher effort and this would need to be heavily true in the future. Only for referred students, assessed to have moderate to severe deficits, would individualized efforts be warranted. It appears that grouping of students can occur without sacrificing the opportunity to meet individual needs if well planned and well monitored. All of the approaches attempted by this writer and other sources cited could be modified to meet new needs and new settings. Materials located for use could also serve many purposes depending upon how they are altered and implemented. This could allow for greater benefits to the entire student population than would be the case if materials were used only in narrow presentations. Obviously, the opportunity to closely monitor results is lost when the intended population is broad such as some of the proposed, indirect efforts to be attempted during the upcoming year.

Private adult and peer tutors have occasionally utilized portions of the training packet to help students (See appendix C), with adults focusing more on outlining and test preparation and peers tending more to facilitate the organization of time and task. Thus far this has been done without training, however, such a workshop could be arranged for small groups using after class hours.

There has been considerable interest expressed by various parents for a one session workshop on how to help students study and then monitor homework progress. Portions of materials presented here will soon be utilized for such an effort. A possibility of videotaping a 30 minute segment for local educational television usage is also in the offering. Once the videotape is prepared the usage could be repeated for secondary parent programs at the convenience of the group rather than the psychologist presenter. Private viewing for parents as a staffing follow-up could also be arranged if desired.

Keeping appraised of study skills information and communicating results and materials can help identify the school psychologist as one who has knowledge and practical information in the field as well as theoretical viewpoint. When decisions are made for curriculum materials and course design as well as when individual recommendations are made for a single referred student, such information can help to facilitate the learning process for students of all ability levels and with all educational needs.

ANNOTATED REFERENCES

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A series of separate publications addressed to regular classroom teachers. A curriculum guide includes scope and sequence in six major areas of study: (1) listening, (2) scheduling, (3) task analysis, (4) memory, (5) notetaking, and (6) using a textbook. All materials are provided from correspondence formats to lessons and record keeping forms.

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This article reviews investigation outcomes in four major areas of study skills applied to reading content texts. The work of basic researchers are discussed in two major divisions: (1) student proposed (notetaking and outlining) and (2) teacher produced (inserted questions and organizers).

Wilcox, W.C. & Wilson, B.G. (1979, January) How to study: The neglected basic. Paper presented at Brigham Young Univ. Midyear Conference, (Provo, Utah). (Ed 201580).
This report is a concise discussion of knowing when and how to apply basic study strategies which are subdivided into three large clusters: Memory, comprehension, and problem-solving. Each cluster is then further divided for purposes of secondary level instruction and activities into various specific study strategies. Every splinter skill is briefly discussed or illustrated through example.

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Appendices

A - L

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Appendix A

STUDY HABITS CHECKLIST

(Please Print)

Name____Date________________
Last First

Grade or year______________________Age______________________ Sex M F
Yrs. Mos. (Circle one)

School____

To the Student:

Read each question in the Checklist. Think carefully about each question, and answer it as accurately as you can.

Place an "X" in the column which best describes your habit. For Example, the first question is:

	Almost Always	Most of the time	Half of the time	Some-times	Almost Never
1. Do you keep up to date in your reading assignments?					

If, in your case, this happens to be true only sometimes, place an "X" as shown in the above sample.

	Almost Always	More than Half of the Time	About Half of the time	Less Than Half of the Time	Almost Never
Use of Time					
1. Do you keep up to date in your reading assignments?					
2. Do you keep a written study schedule on which you show the time you plan to set aside each day for studying?					
3. Do you divide your study time among the various subjects to be studied?					
Physical Setting					
4. Is the space on your study desk or table large enough?					
5. Is your study desk or table kept neat, that is, free of distracting objects?					
6. Do you study in a quiet place - a place that is free from noisy disturbances?					
7. Do you study by yourself rather than with others?					
8. When you sit down to study, do you have the equipment and materials you need?					
Preview					
9. When you sit down to study, do you get settled quickly?					
10. Do you look a chapter over before reading it in detail?					
11. Before reading an assignment in detail, do you make use of any of the clues in the book such as heading, heavy print, pictures, etc.?					

	Almost Always	More than Half of the Time	About Half of the time	Less Than Half of the Time	Almost Never
Reading					
12. As you read an assignment, do you have in mind questions which you are actually trying to answer?					
13. Can you find the main ideas in what you read?					
14. Do you try to get the meaning of important new words?					
15. Are you able to read without saying each word to yourself?					
Note-taking					
16. As you read, do you make notes?					
17. Do you review class notes as soon as possible after class?					
Remembering					
18. Do you try to find a genuine interest in the subjects you study?					
19. Do you try to understand thoroughly all material that you should remember?					
20. Do you try to understand thoroughly all material that you should remember?					
21. When studying material to be remembered, do you try to summarize it to yourself?					
22. Do you distribute the study of a lengthy assignment over several study sessions?					
23. Do you try to relate what you are learning in one subject to what you are learning in other subjects?					

	Almost Always	More than Half of the Time	About Half of the time	Less Than Half of the Time	Almost Never
Study Helps					
24. In addition to reading the textbook, do you read other materials for the course?					
25. When you have questions about your work, do you try to arrange to talk them over with your instructor?					
26. Do you discuss the content of your studies with others outside of class?					
Examinations					
27. Do you make specific preparations for examinations?					
28. In studying for an examination, do you distribute your time over at least two sessions?					
29. Do you combine important notes on your textbook and from class into a new master outline in studying for a major examination?					
30. In preparing for an examination, do you review the important facts and principles?					
31. In preparing for an examination, do you attempt to predict examination questions?					
32. On the night before an examination, do you go to bed at about your usual time?					

	Almost Always	More than Half of the Time	About Half of the time	Less Than Half of the Time	Almost Never
Study Helps					
24. In addition to reading the textbook, do you read other materials for the course?					
25. When you have questions about your work, do you try to arrange to talk them over with your instructor?					
26. Do you discuss the content of your studies with others outside of class?					
Examinations					
27. Do you make specific preparations for examinations?					
28. In studying for an examination, do you distribute your time over at least two sessions?					
29. Do you combine important notes on your textbook and from class into a new master outline in studying for a major examination?					
30. In preparing for an examination, do you review the important facts and principles?					
31. In preparing for an examination, do you attempt to predict examination questions?					
32. On the night before an examination, do you go to bed at about your usual time?					

Appendix B

SPECIAL REPORT

STUDENT ________________________________ DATE ________________

TIMES ABSENT: ____________ TIMES LATE TO CLASS: ____________________

SUBJECT ________________________________ TEACHER ______________

Please give your estimate of this student on the points listed and answer the questions listed below. This student has been referred as a possibility for Special Services, and we need to determine if he/she functions adequately in the school environment. Please return within the next day or two to Joan Rump, Chair of the Special Education Department.

1. In comparison with other students, does this student seem to understand and follow the routines, rules, schedules, and patterns of the school? Does he seem able to function independently or does he need unusual help, direction, explanation?

2. In comparison with other students, does this student seem to understand the and follow the routines, rules, schedules, and patterns of the school? Does he seem able to function independently or does he need unusual help, direction, explanation?

3. In comparison with other students, is this student immature or unrealistic concerning academic and/or vocational goals?

	Excellent	Good	Fair	Poor
COOPERATION				
INTEREST & ATTENTION				
EFFORT				
QUALITY OF WORK DONE				
FRIENDLINESS				
ACCEPTANCE BY GROUT				

If you had to assign this student a grade at this time, what would be your recommendations? Circle one: A B C D F

Barlington Community High School

70

Appendix B

BURLINGTON COMMUNITY HIGH SCHOOL STUDENT EVALUATION

STUDENT ____________________ Date ____________________

TEACHERS: It is necessary that we have an evaluation of this student. Please comment on (1) work in class, (2) discipline, (3) completion of assigned homework and other areas you feel are important in presenting the evaluation. Use reverse side if more room is needed.

STUDENT AND PARENTS: The student is to get this form from the office and take it with him to each class, presenting it to the teacher at the beginning of each period. At 3:15 p.m. he/she is to return it to the Counseling Office where a duplicate will be made and sent home for the parents to read and sign. This report is to be returned to the office the following morning.

1st period Teacher ____________________ Subject __________ Comments:

2nd period Teacher ____________________ Subject __________ Comments:

3rd period Teacher ____________________ Subject __________ Comments:

4th period Teacher ____________________ Subject __________ Comments:

5th period Teacher ____________________ Subject __________ Comments:

6th period Teacher ____________________ Subject __________ Comments:

7th period Teacher ____________________ Subject __________ Comments:

RETURN THIS REPORT TO THE
COUNSELING OFFICE AT 3:15 P.M.

____
Signature of parent/guardian

Appendix C

Worksheet #1

TIME LOG

STUDENT____________________________________ DATE____________

	MON	TUE	WED	THURS	FRI	SAT	SUN
7:00							
8:00							
9:00							
10:00							
11:00							
12:00							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							

☐ Indicate school hours by heavy line from Monday through Friday as per example

Appendix C

Worksheet #2

MY TIME ROBBER ANALYSIS

1. My worst time robber(s) is/are Procrastination
   Interruptions

   a) ____________________________________

   b) ____________________________________

   c) ____________________________________

2. How bad is it?

   How many hours a day do I spent at it?

3. What are the causes of the time of robbers?

Causes	Solutions
Internal	
External	

4. Commitment time: Choose a target cause and solution(s) to achieve target.

   ____

   ____

   ____

5. Follow-up

Appendix C

Worksheet #3

HOW TO MAKE A SCHEDULE

1. Eliminate dead hours. Each block of time should be a productive unit.

2. Use daylight hours.

3. Study before recitation type classes. The material is fresh in your mind.

4. Study after lecture type classes. Retention and understanding are aided by review of your lecture notes after class.

5. List activities according to priorties.

6. Avoid too much detail.

7. Know your sleep pattern.

   Sleep when you're sleepy.
   Study when you're alert.

8. Plan one hour blocks of time: fifty minutes to study; ten minutes for a break.

9. Allow time for sleep.

10. Eat well-balanced meals. Dietary deficiencies can result in lack of pep, irritability, and fatigue. Try orange juice, nuts, collage cheese to raise blood sugar.

11. Initially allow double your time estimate to complete job.

Some students work better when old-fashioned detailed schedule; whereas others work better with a brief To-Do list.

Types of Schedule

1. Master Schedule
2. Weekly Schedule
3. Assignment Oriented Schedule
4. Daily Schedule - 3 x 5 card

(Hansmeyer, J. 1981)

Appendix C

Worksheet #4

STUDY SKILLS: GETTING MY ACT TOGETHER

1. Time Management:

   A. Time Log - Analyze the use of your time for three to five days.

   B. Planning the Day

      1. Make your To-Do List

         a) appointment books
         b) desk calendar
         c) To-Do list pads
         d) weekly planning guides (airplane view of the week)
         e) squares - stick on cork

         -List three to four assignments
         -Break each assignment into manageable units
         -Rank order assignment (setting priorities)_

      2. Make an appointment and place for study
         -Consider practical factors (maybe some assignments can be done only a certain time of day.)
         -Consider biological factors: are you a morning person or a night person. Use your tempo to good advantage. Use your "high hours" for priority assignments requiring: original thinking, concentration, unpleasant jobs, organizing projects.
         Example: Biological factors
         9 AM - 12 M - High gear priority tasks
         12 M - 4 P - Fairly alert
         4 PM - 6 PM Low gear-do routine
         6 PM - 10 PM Faily alert

         -Consider deadline factor
         -Select a place/s to study
         -a sunny room; a shady room?
         -a room with windows?
         -a room that's isolated
         -a room that's practical/convenient
         -a library?

      3. Determine self-reinforcement

(Hansmeyer, J. 1981)

Appendix C

Worksheet #4, Continued

C. Spotting and alleviating Procrastination - Interruptions

1. The Big Picture Squares You? - Break job into manageable task.
2. Identify interruptions - and an attack to remove or minimize them.
3. Russian Roulette - List on individual slips of paper unpleasant jobs you've been avoiding. Put slips in a coffee can and draw one out each day. Include some pleasurable activities. 3:1 ratio - of pain to pleasure.
4. Begin the project with an easy enjoyable piece - just get going.
5. Get someone to work with you.
6. Commit someone else that you'll finish on a set deadline.
7. Have all the information available before you start.
8. Begin the project when you're rested.
9. Reward yourself all along the way.

Appendix C

Worksheet #5

TIME ESTIMATION CARD

NAME____DATE______________________

ASSIGNMENT____

ACTIVITY TYPE(S) ____

____

ESTIMATE TIME__________________________DIFFERENCE IN TIME (+) _____________

ACTUAL TIME____ (-) _____________

POSSIBLE REASONS FOR DIFFERENCE____

____

CHANGES IN ESTIMATION FOR NEXT SIMILAR ASSIGNMENT_________________________

____

J. Kuepper (1984)

TIME ESTIMATION CARD

NAME____DATE______________________

ASSIGNMENT____

ACTIVITY TYPE(S) ____

____

ESTIMATE TIME__________________________DIFFERENCE IN TIME (+) _____________

ACTUAL TIME____ (-) _____________

POSSIBLE REASONS FOR DIFFERENCE____

____

CHANGES IN ESTIMATION FOR NEXT SIMILAR ASSIGNMENT_________________________

____

J. Kuepper (1984)

Appendix C

Worksheet #6

TIME AND ASSIGNMENT PLANNING SCHEDULE

STUDENT________________________________ DATE________________

Major Assignments for Week

1.________________________________ 4.________________________________

2.________________________________ 5.________________________________

3.________________________________ 6.________________________________

ASSIGNMENT #1 Steps (in order)	Action/Materials Needed	Start (date)	Complete (date)
1.			
2.			
3.			
4.			
5.			
ASSIGNMENT #2			
1.			
2.			
3.			
4.			
5.			
ASSIGNMENT #3			
1.			
2.			
3.			
4.			
5.			

-Add sheets as needed with some categories

Joan Kuepper (1984)

Appendix C

Worksheet #7

TEXTBOOK USAGE

START

OVERVIEW BEFORE	Get the "Big Picture" Note Heading and Subheadings Summaries
DURING READING	Note key ideas Read one paragraph & check recall Record comprehension - make marginal notes, underline
AFTER READING	Recite aloud ideas read. Check accuracy. Review notes to fit them into a complete picture Reflect - manipulate these ideas into categories - interweave with existing knowledge

(Hansmeyer, J. 1981)

Appendix C

Worksheet #8

STEPS OF THE PQ4R STUDY METHOD

1. P - Review three to five minutes
   - a. Examine title of chapter
   - b. Read introductory paragraphs.
   - c. Read each subtitle and boldfaced print.
   - d. Read concluding paragraphs or summary.
2. Q - Question
   - a. Turn the first boldface heading into a question using the words "how" and/or "why". When boldface headings are not available - topic sentences may be turned into questions.
   - b. Continue questioning procedure throughout chapter.
   - c. Write out each question.
3. R - Read
   - a. Read section to answer your question.
   - b. The answer will be stated within the section.
4. R - Reflect
   - a. Consider outside information.
   - b. Draw conclusions.
   - c. Think - then write the answer in your own words.
5. R - Recite
   - a. Cover answers
   - b. Read questions and attempt to recite the answers.
   - c. Practice writing the answers.
     1. Answers will be main ideas.
     2. Add details under main ideas.
6. R - Review
   - a. Check each answer.
   - b. For incorrect answer - Review section in textbook.

Darien School District (1980)
p. 29

Appendix C

Worksheet #9

ORGANIZER TO BE USED WHILE READING

Student____Date____________________

Name of Chapter________________________________Pages___________________

WHO	WHAT
WHERE	WHEN
HOW	WHY

ORGANIZER TO BE USED AFTER READING

Student____Date____________________

Name of Chapter________________________________Pages___________________

WHO	WHAT
WHERE	WHEN
HOW	WHY

(Smith, C.B. Elliot, P.G., 1979)

Appendix C

Worksheet #10

CORNELL FORMAT MODIFIED

<—— 2 1/2" ——> <—— 6" ——>

RECALL COLUMN	RECORD COLUMN
REFLECTION - SUMMARY	

Procedure for Using Format

1. Record Record main ideas in main column as many meaningful facts and ideas as you can. Write clearly.
2. Reduce Summarize ideas and facts into the recall column.
3. Recite Cover main column-use your jottings in reduced column to recall facts and ideas. Use your own words. Uncover notes to verify performance.
4. Reflect Record only key words, terms, and facts. To be used for memory.
5. Review

(Pauk, 1974)

Appendix C

Worksheet #11

PROJECT STILE

Reduce to key phrases	Textbook Notes	Lecture Notes
Summary Statements		

(STILE, 1979)

Appendix C

Worksheet #12

MEMORIZATION PROCESS

START	
DEVELOP INTEREST	
STRESS UNDERSTANDING	Unclear information is more difficult to remember (See organizational steps)
ESTIMATE EFFORT	Effort depend on: -prior knowledge -quantity of material -understanding of concepts -strategy used
SELECT/USE A STRATEGY	See Chart
PROVIDE FEEDBACK	Consider relative, Friend, teacher - Compare performance with original
PROVIDE REPETITION	Use many modalities Use novelty

(STILE, 1979)

Appendix C

Worksheet #13

STRATEGIES TO FACILITATE REMEMBERING

CLUSTERING

1. Categorizing - Possible Systems
   - a) Interrogative - Who? What? When? Where?
   - b) Language Function - Nouns, Verbs, Descriptive
   - c) Information Sequence
     - Enumerative (one, two, three)
     - Chronological (early, middle, late)
     - Spatial (near, far)
     - Narrative
     - 1) cause/effect
     - 2) questions/answers
     - 3) specifics/generalizations
     - 4) examples
     - 5) conclusions
     - 6) principles
   - d) Physical Appearance
     - Size
     - Shape
     - Weight
     - Height
     - Strength
     - Ornamentation
     - Color
     - Function

ASSOCIATION

2. Use of Images, Mneumonic Devices
   - -Acronyms: recall of information
   - -Developing Associations - Remembering people
     - -Select a modern day counterpart to the historical figures
   - -Developing Associations: Events/Situations
   - -Developing images to improve recall
     - -graphs
     - -diagrams
     - -overlays
     - -pictures
     - -sketches
     - May be exaggerated/absurd
     - Flow Charts
     - Loci
   - -Use mnemonics to improve recall

Thumbtack Systems

Alphabet System	Numerical Systems
Information Attached	Information Attached
A. ____	1. ____
B. ____	2. ____
C. ____	3. ____
D. ____	4. ____

J. Hansmeyer, 1981

Appendix C

Worksheet #14

MEMORY STRATEGIES

Clustering Strategies

1. Outlining - Organizing information by mainpoints - and supporting detail.
2. Color - Uses color to organize material instead of numbers, letters. Main ideas in red, supporting ideas in blue, other ideas in pink.
3. Categories - Breaks large amounts of material into smaller groups to remember.
4. Grouping - Breaks large amounts of material into smaller groups to remember.
5. Alphabetizing - Items on a list are alphabetized so person can categorize list into number of a's; __ number of b's; etc.
6. Key Point - Used in note format - Cornell

Association Strategies

1. Imagery - Produces mental pictures to associate new information to the old.
    -stress large size, movement, unusal proportion, bizarre
2. Index cards - used for paired information.
3. Chaining - Mental picture associations are made between two items at a time. The first items cue the second, the second cues retrieval of the third, etc.
4. Comparison - Find some union of relationship between two things - may make remembering easier.
5. Loci - Means "place" (Greek); Forms a mental map of a very familiar place. Items to be memorized are given certain placed in the picture.
6. Mnemonics - Cue words - made from first letter of each word in the list to be remembered. Cue phrases. cue acronyms
7. Rhymes -
8. Breaking the normal routine -
    -a string around your finger
    -a coat sleeve turned inside out
    -a clothes pick on the car ignition
    -a note taped to mirror

J. Hansmeyer, 1981

Appendix C

Worksheet #15

FACTORS INFLUENCING FAILURE

	Before the test	During the test	After the test
Course design; and/or Instructor	___ test expectations unclear ___ instructor presented ideas unclearly, examples; ___ inadequate study guides ___ textbook wasn't clear ___ textbook, in-class material not related ___ instructor not available or unwilling to answer questions ___ study sessions not helpful ___ other, specify	___ poor physical conditions ___ inadequate time allowed ___ test questions poorly phrased ___ test didn't cover expected material ___ test didn't cover significant material ___ test directions were unclear ___ other, specify	___ adequate feedback not provided ___ not enough opportunity to go over test ___ test scored improperly or incorrectly ___ other, specify
Self	___ used study time poorly ___ didn't read text or mark adequately (or hand-outs) ___ didn't review ___ didn't attend 100% ___ didn't participate in class ___ didn't attend study sessions ___ didn't take adequate notes ___ didn't pay attention to class material ___ didn't predict test questions ___ negative attitude ___ other pressures on my mind ___ other, specify	___ my test questions were not good predictors ___ couldn't concentrate ___ didn't follow directions ___ felt tense ___ didn't plan my time well ___ other, specify	___ felt disappointed angry ___ didn't pay attention to feedback ___ didn't go over my test carefully to learn from my mistakes ___ other, specify

(Brown, 1979)

Appendix C

Worksheet #16

TEST: PREPARATION AND TAKING SKILLS (con't)

2. Preparation

-Understand common terms used in tests

1) compare
2) contrast
3) criticize
4) define
5) diagram
6) discuss
7) enumerate
8) evaluate
9) explain
10) illustrate
11) interpret
12) justify
13) list
15) prove
16) relate
17) state
18) review
19) summarize
20) trace

3. Preparation

Make a countdown calendar test schedule. List study times and activity to be completed.

4. Preparation - Study Procedures

SQ3R - Survey
Question
Read
Recite
Review

5. Preparation

Plenty of sleep
Attitude assessment

(STILE, 1979)

Appendix C

Worksheet #17

TEST

TAKING

RE: TENSENESS

1) Take several, slow deep breaths, exhaling softly - letting shoulders drop in a relaxed manner.
2) Place hands limply in your lap.
3) Take a few moments to think about events that will reward you when the exam is over.

TAKING ESSAY EXAMS

1) Back of exam sheet - Jot on the back of your exam ideas, facts and details you might forget.
2) Read the directions - Underline key words.
3) Read all the questions - before writing any answer. Select the one you're prepared to answer first.
4) Jot key words and phrases - along side each question as you read each question. Use jottings to organize later writing.
5) Decide how much time - to give each question. Should you run out of time, outline your remaining points.

(Pauk, 1974)

Appendix C

Worksheet #18

TAKING OBJECTIVE TESTS

1. Read directions carefully. Set-time plan.

2. RE: Matching Tests

   Begin with the first term in the left column. Scan the right column for correct answer. Draw a line through your selection.

3. RE: Multiple Choice Tests

   a) Read question - try to formulate your own answer.

   b) Review each choice

   c) Cross out obvious wrong answers

   d. Often the longest answer is correct, as if guessing is necessary, remember.

   e. Use information in other questions to answer the question at hand.

4. RE: True-false Tests

   a. Look at all parts of the True/False question for selecting an answer.

   b. Any small piece of false information in the question makes the statement false.

   c. Absolutes usually mean the answer is false - all, every, exactly, never, always.

5. RE: Reviewing Test Before Turning It In

   a. Make sure all questions are answered.

   b. RE: Essay answers: Did I answer to the question?

   c. Put an "X" at the bottom of each completed page.

(STILE, 1979)

Appendix C

Worksheet #19

POST TEST PERFORMANCE ASSESSMENT

For:

Student________________________________Class________________________

Date___________________________________Grade________________________

1) Did I follow directions?

2) Did I answer all the questions?

3) Did I correct any answers? If so, did it help me?

4) When I guessed did I beat the odds? If so....

5) What strategies did I use?

6) Did I study the right material?

7) From where did most of the questions come? text __ lecture __ other __.

8) Did I look and use clues hidden in the questions
    __ "a/n" in multiple choice questions
    __ absolutes

9) Did I feel like I ran out of time? Why? Why not?

10) Did I jot notes on my test as soon as I received it? Did they help?

11) Did I proofread my answers?

12) On which type question did I do best? (essay __ T/F __ matching multiple choice __)

13) Was I prepared __ Did I study the right way?

14) Did I have trouble with test vocabulary?

15) Did my organizational outline help?

16) Did I ask the teacher for help during the exam?

17) Did I accurately predict my test performance?

18) Circle areas to watch for future test?

(STILE, 1979)

Appendix D

DATE ____________________

Dear _________________

Following our planning meeting and reviewing of material to be used for the 5 session organizational and study skills counseling groups, I reviewed the list of names you submitted. The following students from your program will be included and will miss the period so designated.

	NAME	GROUP 3	CLASS MISSED
1			
2			
3			
4			
5			
6			

Sessions will begin ______________ for Group(s) ________________
(date)
and ________________ for group(s) ___________________. The groups are
(date)
designated as follows:

Group #1 Period, _____, on _____ in Room _____
(day)
Group #2 Period, _____, on _____ in Room _____
(day)
Group #3 Period, _____, on _____ in Room _____
(day)

Your outline gives details of each session. A very brief evaluation for each student will be provided following the last session. If you have questions, please ask soon by a note to my mailbox or by telephone. Thanks for all your interest and cooperation!

Sincerely,

Joan Kuepper
School Psychologist

Appendix D

SCHOOL PSYCHOLOGICAL SERVICES UNIT
GREAT RIVER AREA EDUCATION AGENCY #16

NAME: PARENT:

ADDRESS: CITY: PHONE:

SCHOOL: GRADE: BIRTHDATE: AGE:

EVALUATION DATE: NOV/DEC. 1983

REPORT DATE: 1/13/84 PSYCHOLOGIST: Joan E. Kuepper

FOLDER NOTATION

has been involved in a severel-session study skills program as a part of the Individualized Education Plan. Sessions offered during November and December have dealt with:

1) Wise use of study time—scheduling
2) Breaking priority tasks into manageable units
3) Outlining and note-taking
4) Memory and organization strategies
5) Test-taking skills

attended all sessions. Her level of participation was adequate orally. In terms of follow through for written practice, participation was lacking.

____
Joan E. Kuepper
AEA #16 School Psychologist

Appendix D

STUDY SKILLS PROJECT

Beginning Date ______________________ Termination Date ______________

Student	Group #	Attendance and work by Session				
	1	2	3	4	5	make up
1.	*1 *2					
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

Group #1 meets period ____ on ____
Group #2 meets period ____ on ____
Group #3 meets period ____ on ____

*1 - attended	T-tardy	left black - absent
*2 H - homework in		left blank - in complete homework

J. Kuepper (1984)

Appendix E

Social Studies Project
ERROR TOTALS BY ITEM (N-21)

Dictionary Item #Student	Library Card Item #Student	Index	Encyclopedia	Graphs	Reading Comprehension
1.-	1a-	A-	1a-	A1-	1.-
2.-	1b-	B-	1b-	2-	2.-
3.-	2a-	C-	2a-	3-	3.-
4.-	2b-	D-	2b-	4-	4.-
5.-	3a-	E-	3a-	5-	5.-
6.-	3b-	F-	3b-	B1-	
7.-	4a-	G-	4a-	2-	
8.-	4b-	H-	4b-	3-	
9.-	5a-	I-	5a-	4-	
10.-	5b-	J-	5b-	5-	
	6a-	K-	6a-	C1-	
	6b-	L-	6b-	2-	
	7a-		7a-	3-	
	7b-		7b-	4-	
	8a		8a	5-	
	8b-		8b-	D1-	
	9a-		9a-	2-	
	9b-		9b-	3-	
			10a-	4-	
			10b-	5-	

J. Kuepper (1984)

Appendix E

SOCIAL STUDIES SKILLS TALLY SHEET

NAME	%cor.	%cor.	%cor.	%cor.	%cor.	%cor.	words per min.
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

J. Kuepper (1984)

Appendix E

STUDY SKILLS PROJECT

NAME: ______________________________ DATE: ____________________

Results: (reported in percentage correct)

1) Dictionary ________
2) Library card ________
3) Index ________
4) Encyclopedia ________
5) Graph ________
6) Comprehension ________
7) Reading Rate ________ words per minutes in textbook

[Circled results indicate a need for follow-up.]

J. Kuepper (1984)

STUDY SKILLS PROJECT

NAME: ______________________________ DATE: ____________________

Results: (reported in percentage correct)

1) Dictionary ________
2) Library card ________
3) Index ________
4) Encyclopedia ________
5) Graph ________
6) Comprehension ________
7) Reading Rate ________ words per minutes in textbook

[Circled results indicate a need for follow-up.]

J. Kuepper (1984)

Appendix F

Dear

I am writing this letter to make certain you are aware of the fact that based upon ________________ first semester grades and the third quarter mid-term notices sent out on February 16, there is a definite possibility that ____________ will be retained in the eighth grade for the 1984-85 school year. (A student failing more than the equivalent of a one-year solid course will not meet the requirements for advancing to ninth grade.)

This most serious matter was discussed with your child in my office during the past few days. Mrs. Joan Kuepper, school psychologist at Burlington High School and Oak Street, was also in attendance when this matter was discussed. Based on upon the information gained during the conference, Mrs. Kuepper has listed some specific ideas for ________ to improve his/her grades. These ideas are attached. Mr. Kendell has reviewed these suggestions with _____________. ______________ fully understands the situation and what must be done in the remaining weeks of school to avoid being retained.

Summer school will not be used as a means of making up credits for classes students have failed during the regular school year. There will be no "social promotions."

Feel free to call me if you have further questions concerning this information. If you wish to meet with any of the teachers call the school, ask for Mr. Kendell, Counselor, and he will set up times for you to meet with your child's teacher(s).

Sincerely,

Larry W. McBeth
Principal

Appendix F

Listed below are ideas for R M in order to improve his grades in upcoming weeks.

Listen with *extra* care the first 5 to 7 minutes of each class and *last* 5 minutes because that is when most directions are given. Always *look* at the person giving directions while listening because it will help keep attention directed.

Ask questions *promptly* if you do not understand how to get started.

Have a separate folder or notebook section for each class.

Try to do *at least* the first two items while your teacher is still available for questions.

Keep started work in *the same* place for each class so you can find it easily for later completion - check this place *every* night at your locker when planning homework and materials needed.

Plan *ahead exactly* what study hall time should be used for - have a goal to finish work there and keep it in the building.

If you are *not* sure what all will be covered in the test, ask your teacher.

Keeping *daily* work up to date will allow full practice on skills before each test must be taken.

Consider studying with a friend who does at least as well or better than you do in the class.

Remember that dressing and "trying" to participate even with minor discomforts will earn credit whereas not dressing at all loses credit. Tell your instructor if you have a health complaint after dressing and then do as much as you are *reasonably able* to handle.

Avoid "treating" yourself to non-dress days and then have none left when other problems such as discomfort or no clothes arise.

Appendix F

"Menu" for notices

Listed below are ideas for ____________________ in order to improve _______________ grades in upcoming weeks.

Needs improvement in daily written work (specifics below)

*Remembering assignments

Always write down assignment, directions and date due when given - then cross off when completed.

Listen with extra care the first 5 to 7 minutes of each class and last 5 minutes because that is when most directions are given. Always look at the person giving directions while listening because it will help keep attention directed.

Ask questions promptly if you do not understand how to get started.

Have a separate folder or notebook section for each class.

Avoid rushing simply "to be done" and proofread to find careless errors in copying.

*Getting started on assignments

Try to do at ideas the first two items while your teacher is still available for questions.

Keep started work in the same place for each class so you can find it easily for later completion - check this place every night at your locker when planning homework and materials needed.

Break long term assignments into several smaller steps with their own deadlines and check these off.

*Completing assignments and handing in for credit.

Keep started work in the same place for each class so you can find it easily for later completion - check this place every night at your locker when planning homework and materials needed.

Hand in work - at the beginning of the period before becoming busy with new work.

Be certain where completed work should be placed for each class (basket, desk, bookshelf, etc.).

Tell your teacher that you handed in back work.

Plan ahead exactly what study hall time should be used for - have a goal to finish work there and keep it in the building.

When desperate - incomplete work meeting a final deadline is better than no work at all.

(J. Kuepper, 1984)

Appendix F

Needs improvement in classroom/school attitude (specifics below)

Remember that there is a cost to not paying attention - is the "fun" of "goofing off" worth a failing grade or loss of credits?

Request a seat change if talking to a good friend is simply too tempting.

Socialize before and after school, between classes and at noon period and then tend to your work during actual class time.

Settle non-school related arguments completed outside of the school setting and school hours.

Ignore others attempting to involved you in troublesome incidents during school and/or report serious harassment to building administrators - don't try to handle yourself.

Always have needed materials when you enter the class by planning your day at your locker.

For homework, use your best study hours for the subjects you find the most boring and keep time periods short - with a break allowed. Consider studying with a friend or parent to break the routine to keep the focus on the work.

Needs to improve test scores

Be certain you remember dates of texts and always allow some specific study time for these.

Be sure you review all sources for test items such as textbook, class notes, class handouts.

If you are not sure what all will be covered on the test, ask your teacher.

Keeping daily work up to date will allow full practice on skills before each test must be taken.

Try to mentally "tag" repeated information as future test material - for example - read in book, teacher wrote on board and spoke about in class - place stars by such terms or underline in a special color so you can find easily in your notes.

Consider studying with a friend who does at least as well or better than you do in the class.

(J. Kuepper, 1984)

Appendix F

When absent - needs to complete missing work (Specifics below)

Set a goal to write down all assignments missed in each class on one sheet of paper your first day back and allow one day for each day missed to make deadlines for this work.

Use the list to make an overall plan which allows some work to be in for each class within 1 or 2 days with an ending date set for each class. Be sure to list materials needed.

Plan before or after school help from your teachers if such is needed in order to proceed and d this plan within one day of returning.

Call the school and have school work set home if you are to be gone more than 2 days and if you will be able to do some of it while home recovering.

Needs to correct non-dressing in physical education class (specifics below)

"Forgotten" clothes can be avoided by always bringing an extra set to school before taking the first set (most students have more than 1 pair of shorts and short sleeved shirts) home to be laundered.

Remember that dressing and "trying" to participate even with minor discomforts will earn credit whereas not dressing at all loses credit. tell you instructor if you have a health complaint after dressing and then do as much as you are reasonably able to handle.

Avoid "treating" yourself to non-dress days and then have none left when other problems such as discomfort or no clothes arise.

(J. Kuepper, 1984)

Appendix G

August, 1984

Dear

Once again many students will be starting classes with poor plan for using educational materials. Some very simple ideas for improving study and organizational skills have been prepared (see list below) and are available for your classroom use if you feel these would have some merit for you particular subject area. A guide as to how to use each of the worksheets and minimal time estimates are also available should you wish to have these. One set of materials along with suggested usage is available for scanning in the school library at the main desk.

If you have questions please place a note in my mailbox and I'll soon be in contact with you and provide you with a copy of the guide.

Thank you:

Joan E. Kuepper
School Psychologist

Session 1:	How to Use Study Time	
	Time Log	1
	Time Robber Analysis	2
	Making a Schedule	3
	Time Management	4
	Time Estimation	5
Session 2:	What to Do When Studying	
	Time and Assignment Planning Schedule	6
Session 3:	How to Organize Needed Information	
	Textbook Usage	7
	Explanation of PQ4R Method	8
	Who, What, Where, When, Why	9
	Notetaking (2 sample formats)	10, 11
Session 4:	How to Remember Information	
	Memorization process	12
	Specific Memory Strategies	13, 14
Session 5:	How to Prepare for and Take Tests	
	Factors Influencing Failure	16
	Test Taking Preparation	16
	Taking Essay Exams	17
	Taking Objective Exams	18
	Post Test Assessment	19

Appendix H

Proposal Made for Purple and Grey Column for 1984-1985 Year on Topic of Organizational and Study Skills

Issue

1. Introduction to column and suggestions for study time, place, atmosphere
2. How to organize locker, material and assignment deadlines
3. Notetaking - from class lecture
4. Notetaking - from written material
5. Outlining - use of textbook
6. Test taking skills - organizing material
7. Test taking skills - memorizing material
8. Setting priorities/meeting deadlines
9. Study distractions - how to handle
10. Listening Skills/Learning to concentrate
11. How to ask questions/get help
12. Possible opinion poll covering readership and rating column

Possible Titles:

Study Sense
Study Strategies
Study Strategies Make Study Sense
Organization Overview
Getting Smart About Studying
Making Studying Pay Off

Possible Logo Ideas:

Line drawing of books, pencils, rulers, etc.,
Cartoon character with catchy name
Special printing of Column Title

J. Kuepper (1984)

Appendix I

Date______________________

Dear

As a part of your child's Individual Education Plan a 5 session group counseling plan has been arranged to teach Organizational and Study Skill Strategies. Joan Kuepper, School Psychologist will lead the sessions and provide materials. Attendance will be taken as in any regular class. We believe that these skills are important tools in each course content area.____________________has been selected to participate
(name)
during___________________which will cause________________to miss
(period) (him/her)
________________________for one period per week from______________
(class) (starting date)
until_______________________. Your student is aware of the plan and
(conclusion date)
has agreed to participate. There will be __________ students in
________________group.
(his/her)

The titles of the sessions appear below:
Session 1. Making Good Use of Study Time
2. Deciding What to Do When Studying
3. How to Organize Required Information
4. How to Remember Material
5. How to Prepare for and Take Tests

Please promptly return the form below to me if you agree to have ___________________participate. Please call if you have any questions.

Resource Teacher,______________________________Burlington High School
Telephone,____________________________________

I agree to have my child___________________________________attend
(full name)

5 study skills session as a part of the Individual Educational Plan.

________________________________ ________________________________
(date) (Signature)

Appendix

JDear ______________________

Attached you will find a list of study/organization recommendations given to ______________________ based, in part on the notice written from your class. Please note items circled and place an I if improvement has been made in the last ____________ weeks and an N if no improvement has been made for that particular skills. Judgment of improvement may be based on recent grades, observation, or student comments.

Please rate and return to the mailbox of ____________________________ by ____________________________.

Thank you very much,

____
Joan E. Kuepper
School Psychologist

Appendix K

Make up work for:____________________ Date Missed________________

PERIOD 1: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 2: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 3: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 4: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 5: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 6: Class____________________ (subject)

Assignments____

New due date____________________ ☐

PERIOD 7: Class____________________ (subject)

Assignments____

New due date____________________ ☐

____
(parent's signature)

Turn in list to counselor when completely check in ☐ by teacher

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Appendix L

Plan of Student Day for: ____________________

Date Reviewed ____________________

Enter Bldg. ______ (time) |

	Presently		Suggested	
	materials carried	where/how work stored	materials carried	where/how work stored
PERIOD 1				
PERIOD 2				
PERIOD 3				
PERIOD 4				
PERIOD 5				
PERIOD 6				
PERIOD 7				

Leave Bldg. ______ (time) |

	code
Locker stops	> L
Noon Period	> N
Direct Passage	|

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Sexually Active Children and Adolescents

Susan Hatfield

Abstract

This paper constitutes an overview of sexuality and the school age child spanning sexual development, activity, adjustment problems, fears, and handicapping conditions. Cognitive development, decision-making skills, social skills, vocational skills, premarital sex, contraception, teen pregnancy, adoption, abortion, sexual health problems, and interventions are addressed. School psychologists are encouraged to invest more effort and awareness towards these issues in their dealings with children, especially sexually active youth (SAY). The need for comprehensive sex education as a vital component of the total school curriculum is examined. In school clinics, peer hotlines, radio and TV programs, parent/children seminars, and youth/teen theaters are innovative models of programs that have proven useful in reaching children and young people about important issues on sexuality.

Chapter Outline

Definitions, Background & History 106

    Sexual Development 108

    Sexual Activity 109

Assessment, Diagnosis and Interventions 111

Assessment, Treatment and Follow-up 156

Conclusions and Considerations 158

References 160

Appendices 172

Introduction

> If there is right in the soul, there will be beauty in the person.
> If there is beauty in the person, there will be harmony in the home.
> If there is harmony in the home, there will be order in the nation.
> If there is order in the nation, there will be peace in the world. (adapted from Lao Tze; Colton, 1977, p. 37)

In the opinion of sex educator, Helen Colton, these lines reflect the implications and thrust of the sexual revolution. Freeing the sexual self is one of the steps humankind is obliged to take in order to move closer to a civilized state (Colton, 1977). While the expectations that are cultivated in this poem are constructed with Romantic conceits and facile logic, we are still inclined to believe that good things, do indeed, derive from other good things.

To school psychologists and other agents of change, the desired result from our involvement with the social sexual development of children is not much in dispute: fostering and fortifying in them an attitude of well-being and positive worth, with a corollary state of ease and acceptance of the sexual self. But to bring about this peace and harmony within the individual (let alone the nation or the world) is no mean task. Is is presumed that satisfactory sexual development in children follows from, and is encouraged by, the sharing of enlightened information. Still, resistances that loom up from contexts familiar to these children must frequently be overcome: religious dogma, parental prerogatives of repression, associates' misinformation, and community and cultural exploitation (Pogrebin, 1982). The conviction remains stubbornly held by a vociferous minority that revealing sexual knowledge is tantamount to licensing fornication (Gordon, 1979).

Change agents themselves may be sources of resistance. Psychologists must confront their own sexuality and be prepared to resolve private distress before setting out to do battle with the conflicts of their clients (Ross-Reynolds, 1982). At the very least, the school psychologist should be able to provide the most recent and accurate information on sexuality to students whose needs might require some remedy. This service may be fulfilled by a pamphlet, or allied reading material, or by dialogue, or by referral to outside service agencies. But, more than the rudiments of information, a child may need the professional to be an open-minded, judgment-deferred, always caring person.

It is hoped that this paper will search out the aspects of young people's sexuality. Current, as well as historical thinking, is surveyed; deritive problems are underscored. As Havelock Ellis remarked in 1897 ". . .we can never learn to reverence life until we know how to understand sex" (Lieberman & Peck, 1981, p. xi).

Definition, Background and History

The subject of human sexuality is vast. In coming to terms with this subject, only the major aspects will be featured. A range of opinions surface from all sides. Therefore, the following brief, historical discussion of definitions is presented.

Terms

Sex refers to the anatomical identity with which people are invested at birth (Brennecke & Amick, 1978). A normal female possesses sex organs known as labia, clitoris, vagina, ovaries, and uterus, with a greater preponderance of the female sex hormones—estrogen and progesterone. She would have the potential to develop breasts, to produce ova, to menstruate, to conceive, to bear children, and to nurse her offspring. A normal male possesses sex organs known as penis and testes, with a preponderance of the male hormone, androgen. He would have the potential to produce sperm and father children.

Biologically then, the sex differences between males and females are just four: "only a man can impregnate; only a woman can menstruate, gestate, and lactate" (Muenchow, 1980, p. 51). "Apart from the reproductive differences, most of the other traditionally sex-related behaviors that are integral to our images of men and women are so small in absolute terms that they could be overcome by cultural factors." In other words, differences between males and females are the product of a complex, continuing interplay between biology and cultural environment (Miller & Simon, 1980; Muehcnow, 1980).

Gender refers to the way in which individual sexual characteristics are perceived, either as masculine or feminine (Brennecke & Amick, 1978). Another definition of gender is the physical characteristic of individuals along with their entire pattern of behavior and acceptance as males or females (Rehert, 1982). A variation on the mundane conception of gender can be found in some societies, such as the Navajo Indian, where certain members are consigned to yet a third class, since they are estimated to being neither to the male nor female category. Transported to our culture, these people might be identified or stigmatized as hermaphrodites, transvestites, transsexuals, or homosexuals (Reiss, 1982). Very few people can agree precisely on what is meant by "masculine" or "feminine." The notion varies from culture to culture and remains equivocal even in the scientific and social-scientific community (Brennecke & Amick, 1978).

Sexuality refers to the specific behavior that people engage in as a result of their sex and gender. It is a vast rubric under which is subsumed all sexual activities, emotions, and attitudes; it is powerfully vested in people's beliefs, morals, feelings, and preferences; it describes desires involving sex organs, hormones, and gender identity (Brennecke & Amick, 1978). The term sexuality has eluded clarification. In the January, 1980 SEICUS Report, an international committee came down on the side of vagueness by proffering this definition: "sexuality refers to the totality of being a person" (Reiss, 1982, p. 141). From the particular to the sublime, well-intentioned people search about and do honestly disagree on what this word should mean. Reiss (1982) observes that most of the confusion rises out of misunderstanding of the learned aspects of sexuality rather than the physiology. Simply put, he postulates that sexuality is essentially that which is erotically arousing and is therefore potentially, genitally stimulating. Hoffman (1982), concludes that three elements go into making up the compound we call sexuality: the individual's value system, body image, and self-esteem. The value system, in this conceptualization, is the accumulation of all that has erotic significance to that person. It is a gestalt fused from experiences, genetic factors, fantasies, and negative contents, such as females should not be sexually aroused but be "lady-like" and males should not express affection but be "macho."

Prior to Freud, sexuality was generally believed to emerge full-blown at puberty (Ruppel, 1982). Freud himself then posited that the individual is a sexual being from infancy. He described several periods of development beginning with the oral stage (birth to 18 months), graduating to the anal stage (eighteen months to three or four years), then followed by the infantile-genital stage. The latter included Oedipal-Electra and phallic phases. Freud insisted that during the infantile-genital stage children developed strong possessive, and even sexual feelings, for the parent of the opposite sex. It is at this time that the sexual identity is formed. Sexual confusion, with concomitant problems, may appear later in adult life, and can be traced back to this period (Brennecke & Amick, 1978). Next, the child entered a latent period (six years to puberty) of spare activity until adolescence reawakened primitive sexuality. Then hormones would again trigger the basic drive (Tormey, 1982). The adolescent's dilemma was to find acceptable ways of expressing this sexuality without offending the sensibilities of society, and yet without paying the high cost of repression (Miller & Simon, 1980).

Erickson viewed sexuality in terms of degrees in development of the capacity for intimacy and trust (Miller & Simon, 1980). He felt that psychosexual and psychosocial maturation coexist and progress together (Brennecke & Amick, 1978). The interactionists interpreted sexuality as a dialectic formed by the collision of nature and nurture (Tormey, 1982).

Kohlberg, influenced by Piaget, combined a formula that linked the level of cognitive development to sex role attitudes and gender identity. Sexual experimentation in the adolescent phase is conditioned and prompted by the individual's capacity for formal operations, including the integration of past experience (Miller & Simon, 1980; Pervin, 1978).

Sexual Activity is an expression of sexuality according to Hoffman (1982) and usually develops in stages.

Sex-role identification is like a job description. It refers to the process of feeling associated with, or belonging to, one's own sex (Katz, 1979).

Gender identification refers to a familiarity with the specific anatomical features of each sex and understanding to which gender one belongs (Katz, 1979).

Sexual Development

Physical changes

Sexual development of the individual begins in infancy. Research shows that male babies are capable of erections and female babies are capable of vaginal lubrication (Masters & Johnson, 1974; Pogrebin, 1982; Ruppel, 1982; Safran, 1979). The *quiescent period* between infancy and puberty is characterized by little sexual change (Brennecke & Amick, 1978).

Puberty, when biological events create the capacity for the male to ejaculate or the female to menstruate, is marked by hormonal changes, growth spurts, and the development of secondary sex characteristics, culminating in sexual drives. A typical child experiences puberty, literally meaning "to become hairy," between the ages of 10 and 16. Girls usually enter puberty around 11 1/2. Menrche starts at approximately 12 1/2. Boys usually have the maximum growth spurt about age 13 1/2 with the onset of puberty at 14. For many males, nocturnal emissions are the first signs of pubesence. Maturation of girls is approximately two or even three years ahead of boys during this period, then parity is reached at about age 18. Developmental events include growth of the sexual organs and the appearance of secondary sexual characteristics: pubic hair and body shape, apparent breasts in girls and facial hair and deepening voice in boys. This maturation process can trouble teenagers who may think that they are either ahead of or behind the rest of their peers (Johnson, 1977). All of these conditions have a tremendous and sudden impact on the child's life (Miller & Simon, 1980; Tormey, 1982). Uniquely, industrial societies define adolescents as sexually mature, but simultaneously socially and psychologically immature—thus setting up tension between sexual activity and sexual status.

Susan Muenchow (1980) states that research is starting to show some biological basis for certain *sex differences*, evidenced by males who display more aggressive play and higher activity levels while females display more nurturant behavior, speak sooner, and show more nonverbal communication. Boys are usually stronger, bigger, and heavier, but girls are sturdier and mature faster. The most controversial research suggests that there are very real neurological differences in the way the male and female brain is organized (Restak, 1979). This research shows that the left hemisphere of the brain—the primary center for speech—develops more quickly in girls, and that the right hemisphere—the regulator of spatial and visual abilities—develops more quickly in boys. The implications of these differences for schools and for parents are not clear.

Behavioral Changes

During puberty more active sex play naturally occurs. Masturbation increases. Adolescents explore and experiment with partners to form their sexual identity. After this identity is fairly stable, a person is capable of focusing on someone other than the self to establish satisfying attachments (Brennecke & Amick, 1978). This activity evolves from making friends of the opposite sex, singly or as one of a group, dating, and thus, getting to know others and how to treat them. Holding hands, kissing, and petting progresses to exploring one another's genitals and possibly intercourse (Comfort & Comfort, 1979).

The emergence of sexual feelings is experienced with great intensity at puberty and throughout the teenage years. These sensations deepen and become located in the sexual organs. The term sex drive describes the desire for sexual stimulation and release. Most boys' sex drives become strong during their middle to late teens. While for girls, the increase in sex drive is a slower process with the onset occurring anytime from the teens until 30 or 40 (Kelly, 1977). Because the sexual drive is strong during adolescence, the attraction to or desire for sexual relief is often mistaken for love (Brennecke & Amick, 1978). Home environment, along with sexual experimentation, aids in preparing the young person for more mature experiences of love.

Sexual Activity

Stages

Human sexual activity unfolds in stages. Pairbonding of infant and parent established by body proximity and skin contact-cuddling, holding, and suckling—foreshadows later adolescent and adult bonding. Other pleasurable sensations in infancy are followed by self-examination and stimulation.

Masturbation is probably the first sexual experience a person has. By masturbation, children tap their bodies' potential for pleasure. Most children do masturbate (Bernstein, 1979). Child-development research has found that babies who received no nurturance did not masturbate, even though these infants received the usual stimulation through bathing and diapering. Infantile sexuality is a correlative function of quality nurturance—that is, the holding, the touching and the cuddling. Better understood, masturbation may be indicative of health normality. Masturbation is regarded as natural and harmless (Comer, 1979), and is done for pleasure and relief of tension.

Children begin to explore the bodies of others and may engage in some sex play. Playing doctor with friends and siblings may occur as early as age three. Most children do it and tire of it as soon as their curiosity is satisfied about sexual differences (Brennecke & Amick, 1978). By age five, Martinson (Ruppel, 1982) observes that a child is capable of autoerotic expression, including orgasm. Researchers have also found that dyadic sexual responsiveness is manifested among children prior to puberty; romantic crushes were noted among four year olds in nursery school settings (Ruppel, 1982).

Twenty-five percent of children have explored one another on at least one to four occasions by age 10 (Comer, 1979). Three out of four boys have also been involved in some type of sexual play by adolescence. Exploration involves looking at, and sometimes touching, the penis or vulva of another child. Curiosity appears to be the motive for younger children rather than sexual arousal (Comer, 1979).

Role identification and relations.

Sex role identification and gender identification are clarified as one incorporates the duties and functions of the sexes. By age two, children usually make the discovery of differences between male and female. Parents should communicate to their children that there are differences in anatomy, and that both sexes are loved and valued equally. Mister Rogers, Fred not Carl of TV fame, has a song that goes, "Boys are fancy on the outside, and girls are fancy on the inside."

Discussing sexual matters makes most parents uneasy, but without saying anything, parents teach their children about sexuality, intimacy, and love by the very example of their lives (Bernstein, 1979). Hence, parents and caretakers are the initial, and also the most important, sources of sexual information. Scripts about general roles, one's body, and early sexual responses are transmitted to the child from birth. Later in life, these scripts or messages affect how the individual processes the information accrued from other sources (Ruppel, 1982).

The formulation of sexual identity requires a merging of physiological differences, physical development, and parents' belief systems concerning male and female roles in the family and society. Males are still rewarded for controlling emotions while displaying toughness. Much of their play occurs in group settings. Girls are encouraged to be affectionate while expressing vulnerability. They tend to concentrate their attention on a few intimate friends. A trend is forming whereby parents are willing to offer more options to their children so that they learn attitudes, behaviors, and skills of both sexes; girls and boys practice nurturing functions and rough-and-tumble play in their sex role assumption (Katz, 1979; Pogrebin, 1982).

As children mature, they must appreciate that sex includes emotional intimacy. Otherwise, they may be impressed that the only way for sexually mature people to be held, touched, or comforted is through erotic conduct. The love between male and female (father & mother) should be seen as mutually supportive and caring rather than as exploitative and debasing. What transpires at home will surely influence adolescents' expectations of what is possible for them as they become sexually active (Bernstein, 1979).

Assessment and Diagnosis

Sexual activity includes many types of behavior and potential problems. In order to provide the readership with a useful method of reviewing a particular topic, assessment, diagnosis, and intervention are combined under one heading when appropriate.

Sexual Adjustment Problems

Children's sexuality develops spontaneously with a biological "start mechanism" in infancy that increases pelvic blood flow along with the already present ability to have a penile erection or vaginal lubrication (Lacey, 1982). Many children have been involved in sexual play since infancy, such as rocking, rubbing, or other types of masturbatory behavior (Comer, 1979). Parents generally ignore or suppress any signs of so-called sexual precocity. This mechanism of children's sexuality becomes dormant if no reinforcement through the environment takes place. Langefeldt (cited in Lacey, 1982) concluded that children who did remain sexually active from early childhood on were not as likely to have severe sexual problems as those who had to "restart" their sexuality at later date.

Sexual problem areas for children and adolescents can be defined as behavior or activity causing difficulties for others, including authority figures, and behavior or thoughts causing difficulties for the individual. What is normal sexual activity? This is a conundrum contributed to by everyone, because everyone has his or her own perspective—including the family, the peer group, and the society, with its different religions and subcultures. Each may bring pressure to bear to enforce conformity. But what may be normal or acceptable in one situation is not sanctioned in another. Also, much of what is or is not acceptable sexual activity is never stated but merely implied. The individual is left to sort out what may seem to be illogical, if not irrenconciable. When does sex become a problem? The following are offered as potentially troublesome situations (Kelly, 1977):

1. When they produce guilt, fear, or negative attitudes about oneself.
2. When another person's right to privacy is violated or a law is broken.
3. When one person does not consider personal responsibility toward another and uses sexual deception or manipulation.
4. When someone is emotionally or physically harmed by the feelings or activities.
5. When the body does not function as expected or desired.
6. When an unwanted pregnancy occurs.

7. When a disease is transmitted by the sexual contact. (p. 95).

Psychosexual Disorders

Several disorders and their definitions are given in DSM-III, 1980. These syndromes are gender-identity disorder of childhood, transsexualism, ego-dystonic homosexuality, bisexuality and paraphilias.

Gender-identity disorders. Little boys going through a "sissy" phase and little girls going through a "tomboy" phase will, with high predictability, later exhibit heterosexual behavior. In this era of liberation and transition, reversal behavior would not be seen as abnormal, as tolerance has been stretched to cover new occupations and modes of behavior. But persistent reversal might signal that these children are developing a sexual-identity or gender-identity problem and prefigure their homosexuality or transsexuality (Rehert, 1982). The phenomenon will be resolved when a person accepts or rejects the sexual nature of his or her own body. Homosexuals are satisfied with their physical organs but are attracted to members of their own sex. Transsexuals are convinced they are in the wrong body (Rehert, 1982).

Sexual or gender-identity disorder of childhood. Gender-identity disorder usually begins early in life, long before puberty. It is a persistent and strong desire to be of the opposite sex. This disorder is rare (DSM-III, 1980). Money and Meyer (Rehert, 1982) think that prenatal factors and postnatal development determine gender-identity. How are little children taught to see themselves—as men or as women? Both are convinced that if the parents' relationship is healthy, then usually the child will have no difficulty with sexual identity. Small children may exhibit cross-sex behaviors because they feel abused.

Intervention. Confusion with sexual identification in a child presents two questions: why did the child adopt the opposite sex role and what might be done about it? Money and Meyer feel that if the parents' preference is for their child to be heterosexual, family therapy offers the only hope for change and only if it is begun at an early age (Blanco 1977). Some behavior modification therapies such as Wolpe's and social modeling approaches have been somewhat successful. Expose the child to role models, for instance, change teachers if need be, and encourage activities at YWCA or YMCA, scout programs, or Boys' Club; Big Sister or Big Brother programs are also recommended. Help parents to understand the importance of dressing a child appropriately and urge the assumption of relevant role models for emulation at home.

Transexualism. Transexualism is a sense of discomfort about one's sexual anatomy and the desire to have the opposite sex's genitals. The onset is late adolescentce or early adulthood and individuals often evidence gender identity problems at childhood (DSM-III), appearing as early as age three. The cause is not known. The syndrome is deeply entrenched and will not be outgrown (Restak, 1979). Many transsexuals insist on surgery to achieve their "true" sexual identity. Follow-up on gender-reassignment operations indicates that a bizarre form of repetition-compulsion seems to be installed in these patients. They often request further modifications of their bodies in a moribund search for perfection, when the difficulty may be due to deep psychic pain rather than just the sexual identity.

Intervention. If the disorder is recognized early enough, therapy may be of benefit, and is certainly less drastic than complicated surgeries. Barlow implemented a conditioning approach for older adolescents focusing on feminine or masculine motor patterns of walking, talking, sitting, and standing. One male patient had predominantly female patterns. After utilizing techniques of modeling and videotaped feedback, Barlow progressed to a mental-imagery technique of altering sexual fantasies and arousal patterns. This patient and others reported that they felt more comfortable about their sexual identity and were no longer attracted to surgery (Rostak, 1979).

Homosexuality. Homosexuality and heterosexuality, according to our present knowledge, are programmed in some way during the first five to seven years of life. The actual origins of homosexuality (same sex preference) are now known (Calderone & Johnson, 1981). The Kinsey researchers indicate that sexual preferences may be more affected by biological differences rather than parental or societal influences (Somerville, 1982a).

One should distinguish between a fixed state of homosexuality and the flux of experimentation by youngsters. The latter usually occurs when heterosexual opportunities are unavailable. The majority of adolescents who have participated in homosexual activity do not continue this practice as adults (Ross-Reynolds, 1982).

A study undertaken by the Kinsey Institute of Sex Research noted that homosexual feelings usually begin around age 13 for males and 16 for females. Actual engagement does not usually come about until two to four years later. This discovery indicates homosexual activities reflect an inclination that is already present rather than sexual experimentation leading to homosexual tendencies. Another finding was that a child's display of gender non-conformity greatly increases the chances of that child becoming homosexual regardless of the family background or the child's identification with either parent (Somerville, 1982a).

Ego-dystonic homosexuality is the only form listed in DSM-III (1980). Here, same sex arousal is unwanted and is a persistent distress for those individuals wishing to change orientation. The onset is usually during early adolescence. Homosexuality itself is no longer considered a mental illness, and in 1973 was removed from the list of psychiatric diseases by the medical profession (Bush, 1980).

Intervention. Whatever type of therapy that is undertaken for conversion, only a 20-50% success rate for highly motivated individuals can be demonstrated (Ross-Reynolds, 1982). Aversion therapies are avoided by many clinicians for being ethically unacceptable and practically limiting. Experience suggests that methods to increase heterosexual responsiveness and social dating skills, or to decrease anxiety about the onus of homosexual lifestyle may be more productive. Current techniques include modeling, role playing, shaping, re-conditioning, and desensitization (Brownell & Barlow, 1980; Rekers, 1978). If a student states that he or she is homosexual, the psychologist should probe precisely what the person means—taking into account thoughts, experiences, and feelings. Perhaps the best way a professional can assist is through free dialogue, and if the orientation is homosexual, then one should counsel the individual on developing an acceptance of self and one's sexual destiny. The pros and cons of the lifestyle of a homosexual need to be examined also (Ross-Reynolds, 1982).

Bisexuality. Bisexuality (no stated preference for either sex) appears to develop later than homosexuality with the former associated more with learning and biological differences (Somerville, 1982a). Schwartz and Blumstein (1976), from their interviews of bisexuals, feel that sexual preference is not necessarily imprinted forever, and that people should not be pressured to make choices. The females in their survey appeared to be more flexible with bisexuality than the males, who typically were upset by their first same-sex encounters. In Kinsey's research, he found that people range on a continuum from total heterosexual bias to total homosexual bias. Most people fall somewhere between the two extremes. Someone who functions in the middle is then considered bisexual (Calderone & Johnson, 1981). Masters and Johnson (Sanford, 1979) noted that "ambisexuals," as they refer to them, are small in number. They have few sexual fantasies and display little interest in long-term relationships. Bisexuality appears to be increasing as our culture becomes more androgynous.

Intervention. One way to assist a student presenting problems with bisexuality is to discuss sexual anxieties and to explore any problems of their feeling trapped between hiding the homosexual side from straight friends and family while assuring gay friends of the seriousness of the same-sex commitment (Schwartz and Blumstein, 1976).

Paraphilias. DSM-III (1980) classifies several psychosexual disorders under the category of paraphilias (literally the individual is attracted to a deviation) which includes transvestism, fetishism, zoophilia, pedophilia, voyeurism, exhibitionism, sexual masochism, sexual sadism, and atypical paraphilia.

Transvestism, fetishism, exhibitionism, and voyeurism. These paraphilias all share certain characteristics. Mostly males compulsively perform some socially unacceptable sexual acts without a partner and then masturbate to orgasm. This syndrome signals some conditioning, association, or experience in childhood and is rarely manifested in women.

Transvestism is persistent and recurrent cross-dressing for sexual excitement by heterosexual males (Calderone & Johnson, 1981; DSM-III, 1980). Dressing up on occasion is not noteworthy, but transvestites, even as children, feel compelled to dress in female clothing and to even adopt the feminine personality. However, they do not care to dispose of their penis. Dr. Robert Stoller, head of the Gender Identity Clinic at the University of California, is positive that transvestism originates from conflicting parental demands on a male child and may even be an aboriginal form of "feminine protest." If the father tells the son to be strong but then neglects him, the boy turns to the mother who he believes prefers girls (Money & Tucker, 1975).

Voyeurism refers to a person, usually a male, who achieves sexual excitement through observing unsuspecting people who are either undressing, naked, or participating in sexual activity (DSM-III, 1980).

Fetishism means achieving sexual stimulation and gratification from touching and fondling objects that are not in themselves sexual, such as shoes or clothing (Calderone and Johnson, 1981). The age of onset is usually adolescence but may be earlier if the fetish is endowed with special significance in childhood. Fetishism tends to be a chronic condition (DSM-III, 1980).

Exhibitionism involves the compulsion of a male to exhibit his erect penis to a strange female. The reaction of shock or surprise to this exposure is what provides some kind of sexual satisfaction, since there is no physical contact (Calderone & Johnson, 1981). This disorder may first occur during preadolescence or even middle age.

Male adolescents in therapy for sexual problems such as rape, exhibitionism, and fetishism may trace their difficulties as far back as kindergarten (Lacey, 1982). At that time, these youths could neither endure nor confide their anguish. They had a specific fear of their genitals, even contemplating amputation of their own penises. Children's sexual fixations appeared to be dependent upon their attitudes towards their sexual organs or their state of arousal. Children, especially young boys, who were very uncomfortable about their genitals or genital functioning were the most likely to have overt sex problems—a contrast to boys who held positive attitudes toward their bodies.

Intervention. Langfeldt (cited in Lacey, 1982) observed kindergartners in class after one teacher had complained of children undressing in front of each other. Langfeldt interviewed all of the children asking such questions as: "How do you experience your body? How do you feel about your body? How do you think about your parents? How do you think about your parents' bodies?" Through therapeutic discussion, Langfeldt then helped the children overcome their anxiety and fears and taught them to come to terms with their genitals. He also felt that it was essential to give the child accurate information about their own sexuality, how the body works, and what to expect for their age level.

Zoophilia, sexual masochism, sexual sadism. Zoophilia is engaging in sexual activity with animals and is the preferred method for that person. The animal is often one that the individual had contact with during childhood (DSM-III, 1980).

122

Sexual masochism describes the desired mode of arousing sexual excitement by willingly accepting humiliation, beatings, bondage, and/or suffering (DSM-III, 1980). Masochistic fantasies are frequently present in childhood and age of activity is variable.

Sexual sadism refers to inflicting, repeatedly, psychological or physical suffering on a consenting or unconsenting partner for sexual gratification (DSM-III, 1980). Sexual fantasies are likely to be present in childhood and the onset of actual activity is age variable.

Intervention. Treatment of these assorted obsessions through various types of reconditioning and shaping therapy appears to offer some success (Hoffman, 1977; Rekers, 1978). Most individuals would probably require more time and more profound treatment than a school psychologist would be able to provide, so that a referral of the disordered student to other professionals or outside agencies would be automatic.

Sexual abuse and exploitation

Pedophilia. Pedophilia is child molestation, or child sexual abuse in which the actor obtains sexual gratification though contacts with children. It is most likely the male who participates in this activity (Calderone & Johnson, 1981).

Incest. Incest consists of sexual activity between members of the same family. This exploitation for sexual gratification is either father-daughter (highest reported frequency), older brother-younger sister, or mother-son. Most cultures have explicit taboos against incest. Researchers estimate that from 1 in 10 to 1 in 100 people have been involved in an incestuous incident. Of reported cases, there are 10 female victims to every male victim. Incestuous relationships typically begin in early childhood and terminate in adolescence. The average age of an incest victim is 11. The possible dynamics of family structure: ineffectual father figure, with low self-esteem, who is unable to relate to other adults; unhealthy marital relationships, prolonged absence of one parent; severe overcrowding; lack of social and emotional contact outside the home; geographic isolation, alcoholism, crisis events with resultant low self-esteem; presence of an extremely passive parent; cultural attitude, or multi-generational patterns of incest (Lucht & Herr, 1982). Possible indicators of incest are listed in Figures 1 (Lucht & Herr, 1982) and 2 (Lire, 1982).

Figure 1. Possible indicators of incest.

1. Self-destructive behavior/self mutilation.
2. Indirect references to home problems.
3. Unusual sexual knowledge at an early age.
4. Unexplained injury to genitals
5. Reoccurring bowel or bladder problems.
6. Unusual fear of homosexuality in males.
7. Extreme protective parental behavior.
8. Regressive, fantasy behavior.

9. Extreme withdrawal or aggression.
10. Avoidance of physical activity.
11. Running away from home.
12. Sexually Transmitted Diseases (STD) in children.
13. Fear of the opposite sex.
14. Psychosomatic illnesses.
15. Promiscuous behavior.
16. Poor peer relationships.
17. Drug abuse.
18. Night fears.

Figure 2. Child's Reaction by Age to Sexual Abuse

Age of Child	Child Reactions	Symptoms
Infancy	Frightened	Excessive Crying Physical Ailments (vomiting, etc.)
Toddlers-Preschoolers	Shame, Guilt, Frightened	Regressive behaviors (thumb-sucking, baby talk, etc.)
School-Age Children	Shame, Guilt Frightened	Regressive behaviors (nightmares, school-phobias, etc. Physical Symptoms (abdominal pain, urinating, etc.)
Adolescents	Shame, Guilt Betrayed Anger, Fear	Run away, Promiscuity, Depression, Alcohol or Drug Abuse

Children who are victims of abuse tend to respond in two ways: by sexually acting out—such as becoming promiscuous or seductive—or by retreating—becoming cold and regressed. These children may grow up believing that sexuality is their only attraction or power, and that somehow they are deserving of abuse. They carry a high risk of becoming offenders themselves, or of failing to protect their own children (Nielsen, 1983).

Aspects of incest are the abuse of power and the resultant exploitation of a helpless child. Trickery, bribery, or threats are very often part of the abuse (Kent, 1981). Children are made to feel guilty about what has taken place, almost as if they were willing participants, if not instigators. The perpetrator may carry the delusion that the victim profits by or enjoys the deviant behavior (Brownwell and Barlow, 1980). Fear is another tribulation that the abuser inflicts on the young victim—fear for himself or herself, or fear for other family members. So in many respects, the child may feel shamed, betrayed or muzzled, or even may choose silence in what has been concocted as a "no-win" situation (Nielsen, 1983).

Some common aftermaths of sexual abuse and incest are guilt, depression, low self-esteem, sleep disturbances, and learning and behavioral problems (Nielsen, 1983). Janus (1983) observed that susceptibility to anxiety, drug addition, schizophrenia, and flight were the results of incest and family sex games. One of every 4 girls and 1 of every 10 boys will have had a sexually abusive encounter by age 18 (Kleinmann, 1984). Eighty-five percent of those sexually abused are victims of someone known and trusted by them. Iowa school psychologists are under a mandate to report child abuse, including suspicions of abuse. The statute has been expanded to cover child prostitution, incest, and sexual exploitation as of June, 1984 (Burke & Barker).

Intervention. If a child is molested, and makes a report to school personnel, that report may come in the form of an indirect comment rather than a direct, declarative statement. Shame, fear, guilt, or insufficient vocabulary may inhibit a complete disclosure. Boys are less likely than girls to report abuse and are more reluctant to discuss details. A child may feel guilty about receiving gifts, money, or pleasure in exchange for sexual acquiescence. Often the boy is sworn to secrecy, sometimes with the explicit threat that the revelation of the awful truth will bring certain harm to him or his family. The deceit is further deepened by the unfortunate male ethic that big and little men alike must be "strong and silent." Almost by definition then, a male victim is not "masculine" and may even be decribed as homosexual if he dares to report such an assault (Nasjleti, 1980; Nielsen, 1983).

Sometimes children subjected to sexual exploitation may appear puzzled rather than alarmed. It is incumbent upon the professional and the parent to not appear upset in trying to elicit further information from the youngster, lent the child try to protect the parents (Calderon & Johnston, 1981). Studies have shown that children do tell the truth about sexual abuse (Kent, 1981). The psychologist, if involved, can offer support and assistance to the child and family, by acting as an intermediary. The child should be believed and reassured and convinced that the psychologist will assist in getting help. One must emphasize that the problem is not the child's making, and one should praise the individual for reporting the offense. Most importantly, the child's self-worth must be rescued and reinforced (Plummer, 1984).

To the psychologist, and perhaps others, may fall the burden of preparing the offended person for what may well happen in a legal and emotional sense (Harold, 1984). After disclosure, a child is most vulnerable. This is a critical period for the whole family. The victim may find that everyone has seemingly turned on him or her and could well feel betrayed by the aggressor, the mother, the siblings, and the system (Stark, 1984). A multidisciplinary approach is recommended in sexual abuse cases (Kline, Cole, and Fox, 1981). After a case is referred on to the Child Protective Services, the psychologist should follow-up, qua advocate, guiding that child through the corridors of fear unimaginable to the more fortunate. As a part of the team approach to this problem, the youngster, family, and offender might be referred to several different agencies such as Parents United, the Council on Sexual Assault and Domestic Violence, Catholic Charities, or Florence Crittenton. All of these offer support groups. An at-risk child is removed from the home and may be placed temporarily at a youth shelter (such as Florence Crittenton Emergency Shelter Care Program) until such time as it is deemed safe for the child to return home. Most children may feel punished by removal from the home, miss their home, and want to return there eventually. The current emphasis is on keeping the family together, even in cases of incest, and working intensively to assist these troubled families (Fontana & Besharov, 1979; Hubert, 1984; Stark, 1984). Less damage to the family and the individual result from this approach and allow the family to grow towards becoming a healthy entity (Hubert, 1984; Otto, 1984; Stark, 1984). Florence Crittenton's Parents Survival program offers an in-home case worker, group therapy, and parenting skills to bolster demoted self-esteem.

Children as young as four should be alerted to the early warning signals of sexual abuse. Enlightened concern about personal body safety demands that they know they have the right to determine who can touch them, the difference between "good touching" and "bad touching," and the right to say "No" (Kent, 1981; Nielsen, 1984). It needs to be stressed that no one stranger, acquaintance, or relative—has the right to force or trick or threaten children into having sexual contact. If children feel confused by someone's touch, they have the right to tell the person that they do not like it or to tell somebody they trust. They can be taught strategies to protect themselves: keep an arm's distance from strangers, yell deeply and loudly, or bend a person's little finger back if they are grabbed.

Teenage exploitation. Age is not a defense to feeling defiled when teenage exploitation is encountered. Middle teens and even near adults of seventeen or eighteen, if approached or accosted by other teenagers or adult authority figures, tend to question their own worth. It is as if they project an aura of the willing victim and invite the very insult that they are so unprepared to meet. The maltreatment of teens includes obscene remarks, phone calls, sexual threats, unsolicited touch and/or sex. Adolescents see their reputations besmirched, and worry how their friends and family will react. They are shamed and angry (Bell, 1980).

Adolescents may exploit younger children in sexual play, but as yet there are few programs for this category of teenage offender. The field is so new that there is even a paucity of published material. PHASE (Program for Healthy Adolescent Sexual Expression), located in St. Paul, Minnesota, attempts to reach adolescent males when they are young in order to interrupt recidivism and accomplish normal adjustment. PHASE clients, who have committed sex offenses or exhibited disturbing sex behaviors, are referred by the juvenile courts (Baker, 1982).

Intervention. Lutheran Social Services in Minneapolis, Minnesota developed a program that inculcates responsibility. The parents and the youth are both involved. Before boys can graduate from this program they must understand their behavior, and then be able to discuss it with their parents. The dynamics of the offenders indicate: many were themselves sexually exploited when they were younger by adults or older children, many come from repressive or chaotic families, many seem to have been reared with a double standard of sexuality—boys are expected to experiment but girls are faulted if they are raped (Baker, 1982). Abused children are angry and frequently attempt to work out their frustration and hostility on others (Rowe, 1981).

Rape. Rape is sexual intercourse or oral-genital sex forced upon another person (Calderone & Johnson, 1981). Rape is considered to be an act of violence with the sex organs used as weapons. Usually victims are female, but males may be raped by other males or adolescents by older women. Generally, rapists are young men and their victims are young women. In over 55% of the cases, the rapist had been drinking alcohol before committing the crime. There appears to be several different characteristics that may distinguish the rapist: emotional deprivation, orientation towards violence, absence of moral sense, and a resentment of females that feeds an overwhelming desire to dominate and terrorize. Sometimes this mastery is necessary for performance. The rapist misreads situations and believes women want sex and ask for it—even when they say "no."

Statutory rape is sexual intercourse with a girl who is below the legal age of consent. The limits vary from state to state but fall between the ages of 14 and 21. The girl may be a willing participant, but if she is underage, the law declares her, ipso facto, void of intent, and therefore incapable of complicity. Complaints are rarely brought, but proof would be superfluous that there are a legion of young girls who are willing to have sexual intercourse (Calderone & Johnson, 1981). The law is not always as sophisticated as the participants.

Date rape/acquaintance rape refers to a situation where the victim is essentially trusting of the environment and is not expecting to be harried; she knows the assailant (Burkhard, 1984). This type of rape is frequently not reported and is quite psychologically damaging. There is the double problem of violation of one's body and violation of one's trust in another human being (Barrtett, 1982). Somehow feeling responsible or being under some sort of obligation, anticipating the lack of peer, police, or legal support, or fearing to see the assailant in class are just some of the factors that often deter a girl from reporting an incident. Males are brought up to believe that girls are politely reluctant but co-equally lusting. But the lust is unequal, possessed only by the rapist. A familiar who transforms into a rapist is not just a "horny" masher, nor is he just a regular guy who oversubscribed to the "macho" role. He is a criminal; women do not cause rape or ask for rape but rather men commit rape (Blakely, 1983).

A study by Myers, Templer, and Brown (cited in Meer, 1984) suggests that rapists may look for women who appear to be submissive and devoid of confidence. The rapist converts the message to vulnerable and intimidatable. Another study found that rapists seek out aggressive, domineering females "to put them in their place." These results, while dissimilar, may not be contradictory. If we presume that there is enough room in the human mind for every aberration, and that lust will seek out its own signals, we come away with a caveat to women; project confidence without being too aggressive.

Intervention. The psychologist may be the first person informed and should assist the victim of sexual assault in contacting an agency, such as an AID Center. She can then be put in touch with a rape crisis center or council on sexual assault and violence. These types of agencies offer group counseling and support. They can assist with medical and legal procedures and accompany a person during a medical exam and police interview. The victim should have a medical exam for several reasons: to establish that rape indeed took place, and to determine possible physical damage and the threat of pregnancy or disease. Psychological damage or trauma can be severe. The female can feel uncomfortable in her social setting; feel unsafe, suffer unreasonable dread or lose the ability to concentrate. Reclusion is not unusual (Burkhard, 1984). She may become sexually promiscuous, feeling dirty and worthless, and then search for value by being sexual. She may avoid contraception to get pregnant, wanting to get caught and get punished. Psychologists should be alert to the dynamics and the syndrome of affected behavior, rendering that particular support that would allow the girl to explore her feelings in a safe and unhurried environment. A same sex counselor is advisable if the victim feels uneasy with males.

A pilot program designed by Sioux City's Council on Sexual Assault and Domestic Violence will concentrate on teaching adolescents about date rape. The curriculum will seek to prepare 7th and 8th graders for the uncertainties of dating and the 11th and 12th graders for the strain of independent living. The course will attempt to lessen the intensity of rape trauma and society's subtle approval of sexual domination. A demographically based approach will look at white and American Indian populations in urban and rural schools. Students, teachers, and counselors will provide feedback (Burkhard, 1984).

The school psychologist has certain responsibilities when dealing with treatment related to abuse. Inservice should be provided for one's colleagues covering education and updated information on abuse, the requisite for confidentiality, and the alternatives to physical discipline (Kline, Cole, and Fox, 1981). Programs for parents and children are of benefit in alerting and avoiding future abuse.

Intervention (for perpetrators). In the treatment of individuals with deviant sexual behavioral difficulties; research shows conflicting results. Obviously more research with improved designs in necessary (Wincze, 1981). Some examples of treatment models that appear successful are given below.

People's sexual behavior is greatly influenced by how they interpret and process certain contributing factors. These factors, according to Wincze (1981), may be divided into three main categories:

1. Individual characteristics - knowledge, health, self-image, assertiveness, and age.

2. Past experiences - trauma, parental love, and affection.

3. Current circumstances - partner relationship, substance abuse, job pressures, sexual novelty, and risk.

Wincze (1981), feels his model centers on the importance of an individualized approach to each person, regardless of the presenting complaint.

Most researchers and clinicians recognize that anxiety is a consequence of sexual difficulty. Anxiety reduction procedures such as systematic desensitization have provided some successful resolutions (Wincze, 1981). The steps include relaxation and construction of a hierarchy of meaningful scenes presented systematically to the client through imagination or audio-visual means.

Another approach is the operant procedure of reinforced practice—reward approach behavior and extinguish avoidance behavior by nonreinforcement. One last anxiety-reducing procedure is cognitive restructuring. A person can learn to relabel events as self-supporting "tapes" or messages rather than self-deprecating ones (Wincze, 1981).

Brownell and Barlow (1980) have concluded that there are four components to sexual behavior which necessitate examination and remediation; deviant sexual arousal, appropriate sexual arousal, heterosocial skills, and gender role deviation. One should not be led to believe that inappropriate sexual functioning will be remedied by abatement of deviant arousal or that heterosexual functioning will automatically increase. There is little evidence to support that much optimism. The researchers also feel that preparing the client is the condition precedent for effective therapy. Enlist the person's cooperation in data collection in order to measure therapeutic results and to gauge the exigency of possible adjustments in therapy. The patient needs to understand the purpose and rationale for a particular approach. Cognitive restructuring is essential when the individual is operating under the delusion that his deviant acts are not wrong.

Aversion therapy refers to the aggregate of major procedures utilized to decrease inappropriate sexual arousal. This type of therapy employs the application of an aversive stimulus contingent upon the incidence of undesirable responses (Adams, Tollison, & Carson, 1981). This treatment is applicable to behavioral disorders in which the individual's activity is objectionable to himself and/or to society, but still is self-reinforcing. When time is of the essence, the typically quick results of aversive therapy may possibly deflect the commission of a crime by the troubled person. Aversive therapy is only efficacious when the individual has learned alternative, appropriate methods to gratify sexual urges. This type of therapy has modified behavior when other techniques have failed (Adams, et al, 1981). The main procedures are chemical and olfactory aversion, electrical aversion, shame aversion, and covert sensitization. The latter requires that a patient injects personally obnoxious images into deviant sexual fantasies. This technique demands practice at home between therapy sessions. More adaptive images or fantasies are substituted for the former deviant ones. This procedure is called differential reinforcement of other behaviors (DRO).

Prostitution. Prostitution is the exchange of sex for money. In many countries, prostitution does not qualify as crime, but in all of the United States, excepting parts of Nevada, it is outlawed by statute. Prohibitions notwithstanding, the "oldest profession" continues to flourish. When children rather than adults are made the commodity, the tenderest parts of society's conscience become bruised. "Runaways" or "throwaways"—both boys and girls—are frequently lured into prostitution. These young people present easy marks, since they are usually short of money, love, or security. And they are unable to gauge the long-term consequences of the activity they are entering (Calderne & Johnson, 1981). They are too young to work at McDonalds, but not too young to work the streets. They are desperate to escape from home, and so prostitution becomes a way of life (Phillips, R., 1981).

The Delancey Street Study of San Francisco (Phillips, R., 1981) found that many of these runaway youngsters were from white, educated, nuclear, but incestuous families. That incest, merged with a child's confused fears, can result in learned helplessness. One million American children run away from home each year (Nielsen, 1983). They may flee the suburbs of Chicago, or Des Moines, or Cleveland, seeking acceptance and freedom. Sixty-one percent of the girls in the Delancey Study had been sexually exploited, and in two-thirds of that number, the malefactor was either the natural father or the stepfather. Another study (Harakas, 1981) by Sparky Harlan, director of Huckleberry House—a program in San Francisco for prostitute and runaways—found that ninety percent of the prostitutes were victims of sexual abuse.

Intervention. Of the many programs launched to rescue girls from this oppressive system, most have strangely misfired (Harakas, 1981). Harlan and her associates found cause for optimism by offering job training, placement, and on-going employment counseling. The rescue rate then rose rapidly. A collateral part of this program offers: crisis housing, alternative housing, medical advice and training, and education and instruction on peer and family relationships, sexuality, drugs, and alcohol.

Case Study. One case involving this psychologist ran the gamut. The subject was a fourteen old junior high school student. She had been diagnosed as mentally handicapped at first, then learning disabled, and finally, emotionally disabled. She had been raped at age thirteen. She was then snared by a band of older men called "tennis shoe" pimps (because they prey on minors who wear tennis shoes). This girl would go to school, run away on weekends, then return to school. Her grades fell off. She would cry often. She was being counseled by juvenile court services once a week. This contact was inadequate. At this point, she was referred to this psychologist. An effort was made to sort out her feelings. She was from a single parent family and was at odds with her mother, brother, and younger sister. Her classmates shunned her. They gossiped about her "whoring." She bragged about the gifts her boyfriend had showered on her. Her friends found this even more disgusting. The pimps would wait for her in a car after school. They would urge her to leave with them. Sometimes she did, sometimes she did not. All of these pressures—from family, school, friends, and pimps—converged on her. She became more confused, told more lies, and emotionally decomposed. She worried about pregnancy. She suffered from persistent vaginal infections.

The girl's mother had no control over her. School authorities and the police were brought in to break her away from the pimps. This failed. Charges could not be brought against them. She refused to identify the individuals.

The staffing team felt she had a better chance in another program in another school. She was removed from the territory of the pimps and the taunts of classmates. With the new condition, she seemed to improve. But within a month she quit school and was placed in a residential center. She now renewed her association with the pimps. Then she ran away. The court remanded her to a residential setting in another city for one year. She was returned and placed in yet another residential center. She started her second year of high school. The old problems came back. Students derided her, calling her "whore" and "slut." She was switched to another school. Once again, this psychologist came into contact with her. The long journey had made her withdrawn and hostile. She was receiving therapy at the residential home. She was encouraged to finish high school. She reported that the pimps were still trying to lure her. She said she was determined to avoid them. This past summer she turned 17 and began summer school to earn her G.E.D. It was more difficult than she had foreseen. She became discouraged after a month and ran away from the residential home. She was picked up once, but ran again. In a phone conversation she admitted to her caseworker at the Department of Human Services that she was prostituting and would take off once more if apprehended. She said that she wants to prove she can "make it on her own." Unfortunately, this goal seems absurd since rumor has it that she is back in the parlors of the pimps. Her future looks grim.

Inevitably, for this girl the lure of the "street life" proved more thrilling. Apparently, one part of her psyche disdained that existence, while the other part was drawn to it. This dilemma caused her a great deal of stress. Dan Conway, Chief Juvenile Probation Officer for Woodbury County, Iowa, states that trying to reform young prostitutes is tough.

Rehabilitation is difficult because they frequently lack the necessary academic and vocational skills to function well in a straight life. Prostitution is a complex problem (DeMott, 1983).

Male prostitution. A subdivision of prostitution is one which is stocked with young boys who operate in large cities. The male victims are nicknamed chicken and are patronized by older adolescents and men called chicken hawks (Calderone & Johnson, 1981; Nielsen, 1983). These pedophiles often prefer boys age 9 to 12 and may develop a strong emotional emotional atachement to the victim. They seek out boys who are emotionally troubled or craving attention and affection. The lads who are runaways are from single parent or working parent families and present prime prospects. These youths often have a history of sexual exploitation at home by family members. They are victims of physical and sexual abuse and run away to even worse exploitation. The boys may be replaced after a period of time because the chicken hawk may prefer a younger age group. This rejection, after so much exaggerated attention, causes further confusion, fear, and a sense of betrayal for the boy. An early internship in sex rings and prostitution promotes the use of sex by the youth in order to cope with life's demands and becomes a means to an end.

Intervention. Research is necessary to explore effective methods for eliciting the disclosure of sexual exploitation. Existing treatment for sexually abused boys focuses on the individual's symptoms. The males have a real need for acknowledging their fears, feelings of helplessness, dependency, or vulnerability (Nielsen, 1983). Male youngsters should be included in sexual abuse intervention programs as well as preventive programs. In April, 1984, a National Center for Missing and Exploited Children was established and will assist parents in finding missing children as well as train law enforcement agencies in methodology (Hubbell, 1984).

Pornography. Pornography is still another off-shoot of exploitation, referring to the written word and pictures designed solely to arouse the individual sexually. Pornography is hard to distinguish from art, as even the Supreme Court discovered in 1957. One justice said that he could not define pornography, but knew it when he saw it (Calderone & Johnson, 1981). A prevailing view among psychologists and a conclusion of the President's Commission on Obscenity and Pornography, 1970, was that pornography does not foster deviant or criminal behavior (Calderone & Johnson, 1981; Feshback & Malamuth, 1978). Feshback and Malamuth (1978) feel that this judgment should not be applied to all forms of pornography though. They are concerned about the effects of fusing sex and violence as in sadomasochistic encounters. One of the results of their research points up that males who viewed such erotica were more stimulated by the idea of rape and less sympathetic to the victims than the control group which had not viewed the materials. John Stoltenberg is attempting to retrain men's perceptions about pornography. He explains how pornography relates to humiliation, vulnerability, and subordination of females and children (Astrachan, 1984).

Television, in insiduous ways, can distort our images of ourselves and others as sexual persons. Much time is spent on viewing TV. In time we take our cues for behaviors from the misconceptions promoted on TV, creating false reality from fiction by internalizing stereotypes (Newmark, 1979; Price, 1978). Jean Kilbourne, an advertising researcher, studies the negative images of females and children in ads. Sex is often linked with violence. She contends that the messages projected are not only insulting but dangerous and pose genuine threats to the safety of females and children (Dowst, 1982). Susan Fransblau has noted:

> On TV it tends to be all right to laugh about sex, but not all right to take it seriously as a natural part of a loving relationship. It is all right to show, quite explicitly, a woman being raped...but it is not all right to show a positive, loving sexual act...I do not like the view television gives us of ourselves as sexual beings - funny slapstick, insensitive, silly, sly, often brutal, and somewhat inept (Price, 1978). p. 37).

Child pornography includes sexy child images in advertising "porno" films, and photographs of children engaged in sexual acts. The child becomes a sex object (Newmark, 1979). Sexy images are used to sell every product imaginable, playing to the desire for love and intimacy, sexual or non-sexual (Price, 1978).

"Kiddie porn" particularly points up the exploitation of children who are subjected to this type of humiliation and subordination by the misuse of power (Nielsen, 1983; Ashrachan, 1984). "Porno" photos of the child may be used by offenders as a form of blackmail to guarantee the child's silence.

Intervention. Children need to be alerted to the dangers of being used by the media in any form, and to the destructive messages that are projected onto the public at large (Harakas, 1981). Group projects and discussions are often eye-opening for adolescents.

Concerns of sexual development and maturation

Fears over sexual development. Body image is of prime importance to the developing adolescent. Young people constantly compare themselves to others and are constantly being compared by the rest of the world. It seems that teenagers are never satisfied with their bodies and always yearn to be different, whether that would require bigger breasts or a bigger penis. And, in fact, every aspect of sexual development may prove troublesome for one person or another. Early or late maturing presents uneasiness and concern in both sexes.

Boys may lag behind their friends because slow or late growth is more evident in boys than girls. Studies indicate that early and average maturity are associated with greater prestige among boys. These boys have the advantage of being more successful in athletics, more self-confident, more skilled socially, and more popular with girls (Comer, 1980). Some late maturing boys may seek recognition in negative ways, by being provocative or rebellious, or seeking excessive attention by acting generally irresponsible. Parents and other adults may encourage behavior that is more appropriate for younger children. They may overprotect the youngster, especially if he is upset over his small size (Comer, 1980). A 17 year old youth describes his late development:

> Well for me it was because I didn't even start growing until last year. Everybody thought there was something wrong with me because I still looked like a ten-year-old up until I was 15 or 16. That has been a really bad experience for me because everybody was changing around me and I was standing still. I was changing in my head but not in my body. My parents were going to take me to the doctor to see if I was deformed or something like that, but they didn't, and finally last year I started to grow. My voice started changing and everything so I guess I'm normal after all, but I think it's going to be a while before I stop feeling like I'm different from everybody else. (Bell, 1980, p. 11).

Many aspects of physical growth remain troublesome for the male adolescent. They range from wet dreams, voice change, amount of body hair and penis size, to one testicle hanging low, erections, acne, and breast enlargement.

Gynecomastia is the temporary enlargement of the breasts in boys. This condition occurs in approximately 80 percent of males during puberty. It appears to be caused by a small amount of female sex hormones produced by the testicles. It disappears when the person's body adjusts to the maturational changes (Calderone & Johnson, 1981).

Unexpected erections may be very embarrassing, especially when they choose to occur at inconvenient times or unexpected times (Mayle, 1975). Since the nervous system is expanding and changing along with the hormonal system, the penis has not yet learned what sensations to pick up and what ones to ignore (Tepper, 1976).

Flaccid penes of various sizes tend to approach approximately the same size when they become erect (Calderone & Johnson, 1981; Comfort & Comfort, 1979; Pomery, 1981a). Boys often worry unnecessarily over penis size, thinking that they are not manly enough and will not be able to please the female. Perpetuation of this myth does untold damage. Males must be taught to realize that it is more their caring treatment of the female and their sharing of what is pleasing that might be worth a comparison (Tepper, 1976).

Wet dreams or nocturnal emissions can be surprising or even a frightening occurrence unless a boy knows that this is a normal; healthy event (Kelly, 1977).

Comparing other physical attributes—voice change, body hair, testicles, acne, etc.—may also cause boys to fret needlessly.

Girls may also have problems in development. They are more likely to display early maturation. This physical growth may begin even by eight or nine, causing other people to notice the person, since she is far ahead of her classmates. The girl may become self-conscious. She feels she is the only one changing and everyone seems to be staring at her. Her classmates may even tease her—make remarks. One teenager tells her experience:

> I started maturing physically when I was very young and I never wanted to. When I was about nine I started having breasts and I hated it. I was still a tomboy, and I used to do anything to hide my chest, like wear baggy shirts and overalls all the time. Now that I'm older, I realize that I just didn't feel ready to grow up then. My body was leading the way and my feelings about changing were about a mile behind (Bell, 1980, p. 21).

Girls also suffer if they are late developers. They may think like boys—that they are never going to mature—and consequently feel set apart from their friends.

Females are troubled about several other aspects of sexual development, including size of breasts, inverted nipples, menstruation, unwanted body hair, acne and the hymen.

It is futile for girls to endure humiliation over breast size or possessing the "wrong" shape breasts. The woman's movement has illuminated this point. Feminists declared it was in reality the attitude of society that was wrong. It would be healthier if boys could learn not to judge a girl by the size of her breasts (Bell, 1980; Tepper, 1974).

Inverted nipples and acne are not uncommon and usually pose no health threat. Some girls may indicate concern though. The psychologist or school nurse can explain adolescent body development and recommend an appointment with a medical doctor.

Since the beauty standards of our country are for smooth, hairless armpits and legs, many girls shave in order to be like everyone else. Girls may be teased by both sexes if they are hirsute. Each girl will have to decide how she wants to look and with how much body hair she is comfortable (Bell, 1980).

The hymen or membrane covering the vagina is often stretched through athletics, normal exploration, or sexual intercourse. Some girls dwell on the significance of the hymen as a symbol of virginity or worry about how to lose it without causing pain. Society's attitude towards the importance of a hymen seems to have relaxed (Bell, 1980).

Menstruation can cause a great deal of anguish or be welcomed as a sign of reaching partial maturity. Some girls may know nothing about reproduction and become very upset when menses occurs. Witness the popular teen movie Carrie by Stephen King. Here are two other accounts of young girls' first period.

> I didn't know what was happening...I saw some blood on my thigh,

> so I started to scream. I thought I was bleeding to death. Nobody told me about periods, nobody told me about anything. I was in the fifth grade and I still thought babies grew in your stomach and came out your belly button. I can't believe how scared I was. (Bell, 1980, p. 31).

> That was the most embarrassing thing I've every done in my whole life, buying my first box of tampons. I'll never forget. I was in the store and I kept waiting until the guy at the register went into the back. (Bell, 1980, p. 33).

Intervention. Parents and school psychologists can effectively assist adolescents' fears over many of the problem areas discussed above. They can offer information and reassurance by explaining the broad range of normal sexual development and the physical stages of progression. People do not have to live up to a so-called "Hollywood" image to be attractive to others. Teens should be encouraged to accept themselves as worthy individuals. The focus should be on the total personality and not just the presenting problem (Bell, 1980; Comer, 1980).

Masturbation. Masturbation refers to self-stimulation of the sex organs for arousal, and usually, orgasm. Recent studies indicate over 95 percent of males and 75 percent of females do masturbate (Calderone & Johnson 1981) and as one psychologist claims, "99 percent of males masturbate; the other one percent are lying!" Myths still prevail over the supposed harm that can result from masturbation.

Masturbation is considered by some authorities to be an important step in normal sexual development (Gordon, 1981; Lieberman and Peck, 1981). It may prepare young people for understanding their sexual feelings and it may serve as a substitute for sex with others until an individual is ready. A sense of privacy or modesty can be taught without resorting to shame or guilt (Gordon, 1981). One reason for failing to achieve sexual satisfaction as adults is the interference by parents at the time when the child discovers his or her own body is a source of satisfaction (Calderon and Johnson, 1981).

Masturbation becomes a problem when it is practiced in excess or resorted to in an inappropriate setting. Students have been reported masturbating at school in classes and restrooms.

Intervention. Children need to understand that masturbation is acceptable behavior, but it should be done in private. They may need to be reminded to tend to their school work. In some students, masturbation appears to be a compulsive act. The school nurse should check to determine if the child is wearing clothing that is too tight, or if the child has an infection or skin irritation or parasites. If these conditions are excluded by inspection, and the child ignores repeated promptings on the social custom of privacy, then the school psychologist may be asked for advice. Sometimes keeping the child busy by employing their hands in activities—such as modeling clay, hand weaving, finger painting or typing, etc.—may be enough to curb the behavior (Blanco, 1977). The teacher may use a private signal agreed upon beforehand by both parties—that would warn or remind that youngster that the instructor is aware that masturbation is in progress. The child should be reinforced then for staying on task (Rekers, 1978).

In one stubborn case the substitution by the teacher of an aversive activity for the more pleasurable one finally brought about extinction of the habit. The teacher sent the child to the bathroom immediately upon initiation of the masturbatory activity. The child did not want to leave class to go to the bathroom, so in a short time the child was discouraged from masturbating. The youngster, through counseling, recognized the inappropriate choice of setting to practice this behavior, and realized that her classmates did not approve of it (Lohry, 1981).

Children who are retarded or have emotional problems may masturbate compulsively. One way to extinguish this behavior is by substituting a five to ten minute stretch of strenuous exercise such as running in the gym. A teacher found exercise effective for a chronic case. Substitutions of other more positive behaviors seem to be effective when coupled with positive reinforcement. Over-correction, when employed, has demonstrated generally positive results. It does not require extensive program time, can be applied throughout the day, and still maintains its effectiveness (Karoly, 1980).

Adolescents may seek counseling concerning masturbation. Myths may need to be dispelled. However, over-generalized advice, stands for or against, or excessive concentration on masturbation may not be helpful in the long run. The counseling needs to focus on the growing individual and the whole personality (Kennedy, 1977).

Fantasy. In sexual terms, fantasy refers to the imagining of scenes and events that are usually sexual and romantic but rarely are carried out. For most, it is harmless and may be beneficial. It often accompanies masturbation (Calderone & Johnson, 1981). Fantasies are a safe method to explore thoughts and feelings (Bell, 1980).

Intervention. A student may be worried about fantasizing, mainly because of the content of the fantasy, but should understand that there is a definite difference between fantasy and action. Sex educator, Sol Gordon (1981) states that anyone with any imagination has at times fantasized about homosexuality, murder, rape, incest, and sadism. Accepting one's "unacceptable" thoughts as normal is the best way to keep them under control. In some instances, an individual not understanding this process may become guilt-ridden and "locked" into disturbing fantasies, which then should be explored with a counselor or psychologist (Gordon, 1981; Lieberman & Peck, 1981). Persistent, bizarre and morbid fantasies, or regression and infantile ones, may signify problems with thought processes or maturity. These students may require psychological help to deal with their total development problems, and probably should be referred to an outside agency for extended and intensive therapy (Kennedy, 1977).

Parents concerns/interventions. Parents may find occasion to consult a school psychologist on matters of sexual propriety within their own home. They may be troubled about the children "playing doctor," masturbating, uttering obscenities; they might be concerned about the effect of parental nudity, or the "primal scene," perhaps even bathing the older child, allowing them to sleep with the mother or father, or feeling sexual towards one's own children. Overall, the parents reaction to this set of behaviors will determine just how the children perceive and integrate into their identity the messages of incipient sexuality. Shakespeare's Hamlet says that..."for there is nothing either good or bad, but thinking makes it so..." A calm demeanor and careful explanation will serve to instruct a child on what might be right or wrong about some of these acts at any given time or place.

A sense of modesty seems to occur naturally in children (Gordon, 1983). Nudity should not be paraded about, but a fetish of being covered is just as unbalanced. Close body contact that results from bathing an older child or from permitting that child to be sleeping with the parents may be overstimulating to youngsters. Too much stimulation can bind the child to the parent and can inhibit emotional growth, yet proof of affection, demonstrated by touching, hugging, or cuddling, is required in the child's overall development. Obviously, a state of reasonable balance is necessary.

Youngsters utter vulgar language both to understand it and to use it as a tool of power. By explaining without censure the offending term—and even using it—the obscenity can be defused and can no longer be used as a weapon (Gordon & Gordon, 1983).

Observing the "primal scene" described by Freud as that event in which the child first witnesses the parents' sexual intercourse—is not likely to traumatize the child, but the effect of parental outrage over the discovery may (Safran, 1979). The child should be asked to leave the room; the parent can then later tender explanations and discuss the mutual exigencies for privacy (Gordon & Gordon, 1983).

If the children are undressed and "playing doctor" the parents should show no alarm. They should tell the children that they understand why kids like to play this game, but the genitals are private. Tell them to get dressed. Introduce alternative games (Gordon, 1983).

Sexual feelings towards one's children are normal, but parents may overreact and attempt to put some distance between themselves and their children. This distancing behavior—such as criticism of the teenagers dress, behavior, make-up, or choice of friends—offers a retreat for the parents and lessens the possibility of any acting-out of sexual feelings. Children may interpret the parents' behavior as rejection, which may, in turn, lead to the children blaming themselves in some way for becoming sexual (Bernstein, 1979). Parents can handle this situation in a more constructive manner by setting limits and explaining what is appropriate and what is not. The youngster should not be allowed to exclude the other parent or try to take that parent's place. The parents need to explain familial roles, and that those roles will not change.

Adolescent concerns/interventions. Adolescent fears over sexuality take many forms. Fears of male-female differences and a search for normality may produce anxiety (Kennedy, 1977). In addition to fears of the opposite sex, Gordon (1981), mentions fear of being a homosexual, the fear that no one will want to have sex with you, the fear of intimacy, and the fear that no one will love you.

When young people consider dating, meeting others with the intention of possibly going out, becomes an issue. Many youths feel too shy and awkward to ask for a date. They think they are not attractive or possess a good enough personality. Girls wait around hoping to be asked, with no control over the situation. It is risky to take a chance of being ignored or rejected when jumping into the dating game (Bell, 1980). Fortunately, the custom of co-ed group activities is on the rise, which would provide a more relaxed atmosphere for practicing one's social skills.

Heterosexual skill deficiencies indirectly cause anxiety and avoidance of heterosexual interactions. Behavioral techniques of modeling, rehearsal, self-observation, and assertiveness training may be effective in improving heterosexual skills. Social retraining procedures of participant modeling plus self-observation (via videotape), group discussion focusing on dating problems and behavioral strategies, replication training programs focusing on information giving, modeling, rehearsal, coaching, video and group feedback and in vivo assignments—all were therapeutic in varying degrees (Adams, et al., 1980). Sexual education, counseling, and reassurance with the important addition of in vivo opposite sex interactions may also generate modification of skills.

Sex role expectation refers to the presumption that males act one way and females act another (Bell, 1980). Sex role expectations limit one's behavior and can become a burden. It takes confidence to move against tradition even if there is interest in change. Girls may feel "put down" by their peers if they dare to ask boys out, and also risk rejection.

Petting refers to whatever takes place between solitary sex and intercourse (Lieberman & Peck, 1981). Definitions vary widely and petting can mean any kind of physical contact short of intercourse—kissing, stroking, caressing, and mutually masturbating (Burgess-Kohn, 1979). Both sexes worry about initiating intimacies. Frequently, early advances are awkward and embarrassing, which leads to further concern. Teens are often not sure how far to go with petting (Kelly, 1977). As petting becomes more intense, it becomes more difficult for people to curb their actions and stay within their self-imposed limits. The personal values, morals, and feelings, derived from the family, dictate one's actions as well as the prevailing mores and thoughts of one's peer group.

The double standard alludes to the separate standards of sexual behavior that are set for males and females. The sexes may be judged by different ideas of what is right or wrong, and these inconsistent notions create a sense of bewilderment for the hapless teenager. Here is what some of them had to say (Bell, 1980):

> Where I used to live, the guys had to go out and get laid. That was the attitude . . . There was real pressure on you . . . If you weren't acting like a sex maniac everybody thought there was something wrong with you. But it was the opposite for the girls. They heard, "Stay pure. Save yourself. Don't be cheap." (p. 67).
>
> In one of our classes the guys and girls had to switch roles for a day. We were supposed to try to imagine what it's like to be the other one and act that way. The guy I did it with said he thought it would be so much better to be a girl because you wouldn't have to worry about knowing what to do or have to be smooth and cool and all that crap. He said the pressure is always on the guy to perform.
>
> I just couldn't believe he was saying those things because I always thought how much easier it would be to be a guy. You wouldn't have to worry about how you looked or how you acted. You could do whatever you felt like doing without worrying about your reputation . . .
>
> That really helped me see how guys and girls have a lot of the same hangups. If only we could talk more about it with each other, that would take a lot of the pressure off. But everybody assumes that other person has it all together so everybody's afraid to open their mouth (1980, p. 68).

Major changes are taking place in society's view of people's sexual roles. The traditional differences are disappearing due to the sexual revolution (Pomeroy, 1981b). Confusion during periods of transition causes more stress for the adolescent.

Promiscuity is a term used to describe casual sex with multiple partners. The medical diagnosis of true promiscuity is that form of compulsive sexual activity originating from myriad social causes in one's infancy and childhood. Certain cultures and strata of society have more acceptance of promiscuity and early sexual activity. The parents often present role models of promiscuity or openness about sex with live-in-partners or multiple partners. The person gains little sexual satisfaction from this behavior. Promiscuity and sexual acting out are frequently by-products of sexual abuse.

Counselors, social workers, and teachers report that promiscuity and female sexual aggressiveness are on the increase among junior high and senior high girls. The feminist movement and better contraception may contribute to this phenomenon. Some girls may no longer feel the former "good girl" constraints that operate under the double standard, and thus, are freed to pursue males with few or no inhibitions.

Research data (Zelnik & Kim, 1982) appears to demonstrate that the decision to engage in sexual activity is not predicated on whether or not adolescents have had sex education in school. However, females who have had sex education appear less likely than those who have not to become pregnant.

School concerns/interventions. Sexual acting out in school circumscribes obscenities, gestures, language, dress, and actions. Direct, concrete methods are often the most effective way to deal with these sexual episodes. A school authority figure should talk with the student as soon as possible. Try to ascertain why the student behaved in that manner. Let him or her know that this is not acceptable behavior and that certain class or school rules have been violated. Set up some consequence for this behavior; inform parents; follow up. Discuss the problem and counsel the individual. Give out necessary information on sexuality.

Teachers report the behaviors of students spanning provocative dress, obscene gestures, and language. Younger teens seem to derive great enjoyment from making snide, sexual remarks or grabbing at each other's sexual parts. One teacher of a self-contained classroom blocked much of this behavior by posting a set of rules in her classroom: "No sexual crap allowed."

Intervention. Most schools have rules covering assaultive behavior, which includes touching or grabbing a person's sexual parts. A "talk" with the principal, psychologist, or other school personnel may halt further incidents. School detention, in-school suspension, informing parents, and contact with the school liaison police officer are also employable deterrents. However, these methods should be paired with discussion and explanations of respect for other students' rights, including privacy and feelings about being touched or grabbed. Schools may also have dress codes which would curb provocative dressing and the matter of lewd slogans on T-shirts.

Sexuality and the handicapped. A major shift in attitude concerning sexuality of the mentally handicapped has been taking place (Graft, A. 1983). In the past, the link between sexual activity and procreation caused the handicapped, and particularly the retarded, to be denied their rights to express their sexuality. With the advent of more effective contraception and better knowledge of genetics and retardation, the normalization process for the handicapped was speeded along. It is now known that the offspring of the mentally deficient will not necessarily be retarded (Weingold, 1973).

The movement towards individual liberty contributed towards the philosophy of normalization. Normalization refers to "the effort to treat the retarded as much like any other individual as possible" (Kempton, 1973, p. 14). Winifred Kempton, an authority on sexuality and the handicapped, and the UN committee on Declaration of Rights of the Mentally Handicapped (Craft, A., 1983) defined normalization of sexuality for the mentally handicapped:

1. The right to receive training in social-sexual behavior that will open more doors for social contact with people in the community.

2. The right to all the knowledge about sexuality they can comprehend.
3. The right to enjoy love and to be loved by the opposite sex, including sexual fulfillment.
4. The right for the opportunity to express sexual impulses in the same form that are socially acceptable for others.
5. The right to birth control services which are specialized to meet their needs.
6. The right to marry.
7. The right to have a voice in whether or not they should have children.
8. The right for supportive services which involve those rights (p. 2).

The tendency for handicapped individuals to be sheltered socially, and to be deficient in cognitive and perceptual areas, may interfere with acquiring positive peer relationships and social skills necessary for adolescent and adult adjustment (Rothenberg, Franzblau, & Jeer, 1979). These children often lack reading and reasoning competency, have fewer friends, may possess a range of handicapping conditions, and may suffer from prejudice. They run the risk of being sexually exploited or rejected by others (Edmonson, 1980; Kempton, 1975).

Those who are mentally handicapped may have delayed but normal psychosexual development. It is also likely that some "sexual" behaviors serve the function of gaining attention (Craft, M., 1983). Part of this inappropriate sexual activity in the school setting may occur because students lack the necessary social skills. These children misread cues and nuances of behavior that guide the rest of society (Zigmon & Brownlee, 1980). These children are also more likely to be deficient in necessary information on sexual matters. The more seriously handicapped are often treated in a child-like fashion because parents think they should be "innocent" and, therefore, have no interest in sex (Craft, M., 1983; Edmonson, 1980).

Intervention. It is crucial to interview the student if he or she is being sexually inappropriate. Many times, a lack of understanding or misunderstanding may be behind the activity. A team conference is a constructive approach to resolve difficult sexual activity and makes for a better evaluation of the situation (Craft, M., 1983).

Methods for working with handicapped students may call for simple, concrete explanations, specialized techniques, and materials--depending on the child's condition and the severity of the handicap. Students may require materials for younger age children. The use of role-playing, visual aids, short sessions, repetition, and review are beneficial techniques. Not all handicapped children may understand why they should conform to certain accepted societal standards, but they can grasp when and how to conform (Dickman, 1981).

Cognitive skills development. Thinking and reasoning skills may be more valuable than any sex education course for sexually active youth (SAY). Information on contraception, abortion, and adoption are of little import to teens if they cannot project themselves into the future, or realize that they can exercise control over their lives (Friedman, 1984). The ability to link actions with future consequences is purely developmental. Teens are capable of making decisions, but must understand their responsibilities and ultimately the impact those decisions will hold for their future.

Cvetkovich (1980) states that immature adolescents commence their sexual careers before acquiring the social and cognitive abilities that would be demanded by prudent birth control use. Three factors appear to be necessary for the accomplishment of fertility control; the acquisition of interactional community skills, the acceptance of one's sexuality and fecundity, and the development of logical and dialectic, cognitive abilities. These skills allow the person to anticipate behavioral consequences and to strike a balance between logic and emotion in personal situations (Urberg, 1982). Jones and Phillibier (1983), in their studies, suggest that SAY lack cognitive consistency in their use of contraception. Young adolescents are prone to risk-taking behavior, besides being impulsive and having trouble making long-range plans. "The consistency and responsibility that effective contraception use requires may not be compatible with the stage of development during which the adolescent becomes sexually active . . . Access to service does not guarantee compliance." (Emans & Masland, 1984, p. 19).

Decision making. Adolescents are faced with some hard decisions as they mature. Many of these determinations revolve around sex. "Decision-making about sex requires a degree of maturity and cognitive complexity that develops slowly, if at all, for many adolescents . . . open and matter-of-fact discussion of sexuality with adolescents is uniformly a great relief to their anxieties about this subject" (Mann, 1982, p. 262).

A responsible decision-making process requires that young people gain certain skills:

1. Identify the decision to be made.
2. Determine why it is needed.
3. Identify alternative options.
4. Analyze information.
5. Evaluate positive aspects of various choices.

6. Estimate the practicality of behaviors.

7. Decide on a conclusion of action (Maskay & Juhasz, 1983).

A school-based, social problem-solving (SPS) training program can stress trying other solutions or strategies if the first one fails, and changing one's goal if necessary. Repeated exposure to the sequential steps noted above can help children integrate the SPS process and utilize it when faced with any problem, including sexual dilemmas (Weissberg & Geston, 1982).

Premarital intercourse. A 1979 study established that 50% of urban females ages 15 to 19 were sexually active (Lieberman & Peck, 1981), and a 1978 Gallup youth survey reported that a two to one majority of respondents, aged 13 to 18, felt that premarital sex is acceptable.

The decision about having intercourse is an especially knotty one for teenagers. Anticipation and romantic attitude, fostered by the media, may lead a person to expect the ultimate sexual episode upon the first occasion of intercourse. "Adolescents need to recognize that pleasurable love-making ending in orgasm is not easy to achieve. It usually requires taking time, mutual education, effort and patience to make love." (Blume, 1975, p. 120).

Intervention. Parents must be willing to discuss sex and contraception with their children on a meaningful, concrete level. Especially if the parent surmises that a child is having sexual relations, then it is time to discuss responsibilities (Gordon & Dickman, 1977). Parents often think that the less the topic of sexuality is discussed, the less chance that their children will be sexually active. However, children who discuss sexuality with their parents on a frequent basis tend to be more responsible sexually (Fisher & Pollack, 1982).

A school psychologist may realize that a student is contemplating sexual intercourse. The psychologist will have to ask some direct questions if the student has not openly declared an intent. "Are you sexually active?" "Are you considering sexual intercourse soon?" "I am here to help you with your decision, if need be." The student may not want to discuss it at all. If so, one can always offer pamphlets for the student to read. Planned Parenthood has excellent ones covering sexual decision-making, birth control, S.T.D., and health. If possible, try to encourage the student to talk to their parents, their counselor, or yourself. Check out how much the student really does know about sex. This is a good time to implement the decision-making process. The psychologist will have to ascertain the student's level of cognition, but it is probably best to be as concrete as cement in discussing this topic and in giving any explanations. It is helpful to the student to go over reasons to have or not have premarital sex. If the student should opt to become sexually active, then the responsibilities toward protection of self and partner need to be examined. Gordon (1981) lists five rights that an accountable individual should accept:

1. No one has the right to exploit another person's body, commercially or sexually.

2. No one has the right to bring an unwanted child into the world.

3. No one has the right to spread venereal disease.

4. No one has the right to exploit children or to take advantage of mentally or physically handicapped people.

5. No one has the right to impose on anyone else his or her sexual preferences, including when and with whom to have sex. Sexual choices must be voluntary (p. 106).

Gordon and Dickman, (1980) declare that values cannot be forced on young people, but they do need to be discussed. One cannot moralize or preach, but one can say what the standards are in society, and that many early sexual relationships are begun before the participants can deal with the situation emotionally. A psychologist may want to discuss sexuality in rap sessions with a small group. Audio-visual programs are productive for a group and role-playing is an extremely effective technique (Gordon & Dickman, 1980).

Birth control. The Alan Guttmacher Institute (1981), through comprehensive research, has compiled some statistics from 1978 about teenagers worth examining:

Only 4 in 10 receive sex education.

Only 3 in 10 learn about contraception.

Contraception use has increased from 1971.

One-third always use a method.

One-half used a method at time of first intercourse—which may have been withdrawal.

Use of most effective methods (pills and I.U.D.) has declined.

The average teenager does not use contraception until 9 to 11 months after initiating coitus.

One-half of teen pregnancies occur in the first six months.

Most teenagers are only sporadically, sexually active following first coitus; therefore, many disdain the need for prescribed, contraceptive methods. They recoil from a pelvic examination and think prescription methods are dangerous. Many teens are uninformed about the risks of pregnancy. Over one-third of teens initiate their first visit for contraception to a clinic because they suspect pregnancy; only 14% come before first intercourse. Fear their parents will find out, and just not getting around to it (procrastination or ambivalence), are major reasons many teens delay a visit to a family planning clinic. Sometimes they delay initiating contraception until a year or more after starting intercourse (Fabin & Clark, 1981).

Teenagers (by a 59 to 27 percent margin) believe contraception should be available to adolescents, according to a 1978 Gallup Youth Survey (Liebermann & Peck, 1981). Students want to know about birth control, and they need this knowledge before the fact, not after (Brown, 1982). According to a recent Normal-Harris Poll, 71% of the students interviewed had never discussed birth control with their parents, and a 1975 Planned Parenthood survey disclosed that most teenagers claimed their primary source of contraceptive information was television. However, analysis of TV public service announcements detected that, in a one-month period, only seven minutes of family planning information was aired (Monson, 1981).

Each of the available methods of birth control have certain advantages and disadvantages, such as side effects, restrictions, ease of use, price, and reliability. No matter which method is chosen though, the user must follow directions precisely to insure protection. The effectiveness of available methods are listed in Figure 3.

Figure 3. Contraceptive Use

Method	Approximate Effectiveness
Abstinence (love-making without intercourse including oral sex)	100%
*The Pill	98-99%
Mini-Pill	97-98%
Morning-After Pill	98-99%
*I.U.D.	95-98%
Condoms	
Used with spermicide	97-98%
Used alone	90-95%
*Diapraghm + spermicide	
with precise insertion	97-98%
otherwise	87-90%
*Cervical Cap + spermicide	
with precise insertion	91%
otherwise	89-90%
Sponge	84-87%
Spermicides (foams, creams, jellies, vaginal suppositories)	84-87%
Withdrawal	77%
Fertility Awareness (Temperature + Mucus/Natural Family Planning)	70-96%

Rhythm (Calendar)	30-40%
Douche	Poor (no available stats)
Luck	10%
*Prescription methods requiring a physical exam	
Permanent Contraception	
Endometrial Aspiration	100%
Abortion	100%
Sterilization	99.6%

Source: Sioux City Planned Parenthood, the Alan Guttmacher Institute (Ory, 1984), Brown, J. (1982), Liebermann and Peck (1981), and VLI Corporation (1983).

Intervention. School-based health services have been found to offer some of the best outreach to adolescents. In two St. Paul high schools, offering school-based clinics, pregnancies have dropped off by 40%; 25% of the female students asked for family planning; and 87% have continued contraception after three years. Physicals, immunizations, and a weight control program were included, in addition to V.D. testing, pregnancy testing, pap smears, and contraceptive information (Edwards, Steinman, Arnold & Hakanson, 1980).

Teens need to be aware of clinics, kinds of available services, locations, costs, and hours. Media, teen hotlines, youth groups, directions, aid centers, and outreach—through community, church, and schools—could advertise this information (Zabin & Clark, 1981).

Pointing out risks of pregnancy and evaluating contraceptive methods may fall to the school psychologist. Then, for many cases, referral on to other agencies—such as a family planning center or a medical doctor—would be warranted. Clinics like Planned Parenthood hold special educational sessions for teens that also include counseling, medical examination, and choice of method component. The psychologist should explain the clinic's services, location, hours, and what is involved in an examination. Answer any questions, stress the risks of pregnancy and high rate of occurrence, and look over pamphlets on contraception with the student. Often the person may want to review the materials and discuss the subject more than once. Help the student arrange an appointment, if necessary. Determine if the student can tell their parents. If not, there may be a problem of privacy in making an appointment and visiting the clinic. She may have to make her own arrangements or possibly the psychologist could furnish transportation, as well as moral support. Appointments should be after school; otherwise parental permission is needed for taking the student from school. Check out contingencies first. Communicate these points to the student.

The school psychologist should follow-up these cases to determine if the students receive the necessary information and service. If the student is using a birth control method, check to see if it is being used correctly.

Teen pregnancy. Premarital sexual activity has increased by two-thirds since 1970 for young unmarried females aged 15-19; the rate for young whites has doubled. In the early 1970's, race, socio-economic status, residence, and religious affiliation were deterrents for the incidence of first intercourse. These factors no longer tend to affect the event of sexual activity according to a United Methodist survey (Alan Guttmacher Institute, 1981). Nevertheless, Dryfoos (1984) has determined that unintended child-bearing falls heavily on poor minority girls. Black girls, aged 15 to 17, are six times more likely to have a child out-of-wedlock than their white counterparts.

Other statistics from the Guttmacher Institute (1981) disclose that 12 million out of 29 million young people between the ages of 13 and 19 have had sexual intercourse. Approximately 4% of adolescents are married, and about 85% of those had coitus prior to marriage. Unplanned pregnancy is a major reason for teen marriages (Alan Guttmacher Institute, 1981).

Approximately 1.1 million teenage pregnancies occur every year (Alan Guttmacher Institute, 1981). The rate of pregnancies for SAY is about 23%; 94% of these are unplanned. More than one in ten girls becomes pregnant every year (Dryfoos, 1984). This statistic shows an increase of 66% for unmarried girls, ages 15-19, from 1960 to 1977. If this trend continues, 4 out of 10 girls will become pregnant at least once in their teens; 2 in 10 will give birth (Gordon & Gilgun, 1982; Ogintz, 1981). Zabin (1981) estimated the impact of early effective contraception among adolescents. Life tables were utilized to calculate the potential reduction of pregnancy risk if all unmarried teenage girls used medically prescribed birth control. Hypothetically, the risk would be reduced by approximately 60% if contraceptive use began one month after first intercourse. A 30% reduction might be expected if contraception was initiated six months after coitus, and a 20% risk reduction after one year. A substantial risk remains if a prescription contraception method is begun after one month. Two conditions account for this: young females are especially at high risk of pregnancy in the first month of intercourse, and females are at high risk if after adopting a prescription method, they use if sporadically, imperfectly, or discontinue it.

With such high probabilities of pregnancies occurring in adolescent girls, speculation might be forgiven. Could it be that we, as humans, and acting as guarantors of the species, are charged by hormonal and pheromonal influence most potently at that very time when the female is so fertile? The chemical cues or pheromones attract mates. Most research on biocommunication is based on insects, but chemical signals are ubiquitous among mammals also (Begley, 1982). Whether the cause is pure biology or sheer magic, teens must be informed about, and impressed by, their very excellent chance of becoming pregnant without protection.

Other research from AGI (1981) brings to light that the younger the SAY's age of commencing coitus, the higher the chance that she will become pregnant during the first months of exposure, and the more likely it was accidental. Unwed SAY who become pregnant in the first few months are especially susceptible to repeated pregnancies.

A recent survey of adolescents revealed that 80% of the females interviewed had had a serious attachment to the boy with whom they had first intercourse, while only 20% of the males allowed that their interest in the girl was above the ordinary. Sixty percent of the boys felt it was all right to lie to the girl about loving her to get sex. Boys generally feel disconnected from responsibility for sexual action and consequence. Almost 90% of adolescent boys who get a girl pregnant, then abandon her. This figure includes those who marry because of the pregnancy (Gordon, 1982). Some states are moving in the direction of holding males liable for the costs of raising a child until age 18 is attained.

Many reasons for teenage pregnancy are suggested in the literature (AGI, 1981; Lewis, 1982; Monson, 1981):

1. Lack of knowledge connecting the act of intercourse with pregnancy or contraception.
2. Misinformation about safe times for sex and best methods of birth control.
3. Fear of discovery of contraceptives by parents, classmates, or teachers.
4. Fear of what other people, such as the partner or peers, might think.
5. Fear that confidentiality will be violated when trying to obtain birth control at a clinic, or from a family doctor.
6. Fear of an examination for contraception.
7. Fear of the possible side effects of contraception.
8. Not knowing where to go to obtain birth control.
9. Resources and sources for obtaining birth control not readily available.
10. Unplanned sex or infrequent sex, leaving the individual unprepared.
11. Increased drug and alcohol use, lowering inhibitions.
12. Later marriage age with earlier puberty age creates a larger gap or time frame for teens to become pregnant.
13. Improved health and nutrition means that girls may become pregnant earlier.

14. More adolescents today because of the "baby boom."

15. Poor self-control.

16. Familial attitudes that nonmarital sex is acceptable.

17. Societal pattern of fewer sexual inhibitions.

18. More opportunities for sexual encounters because of mobility and less supervision (parents working, adolescents have cars).

19. Desire to sustain the spontaneity and naturalness of sex.

20. Magical thinking or disassociation--"I can't become pregnant."

21. Immaturity--refusal to be responsible.

22. Poor cognitive skills--cannot foresee the consequences.

23. Thinking that you are protected by your youth.

24. Pressured by male to have intercourse.

25. Wanting to become pregnant.

Risks of Teenage Pregnancy

Risks and complications are more prone to occur with a teenage pregnancy as compared to women age 20 or older (Lewis, 1982). See Figure 4.

Figure 4. Risks of teenage pregnancy

1. Medical risks
   Maternal mortality rate may be 30-60% higher*
   Fetal death--30% higher
   Infant death--30-50% higher
   Premature births--higher
   Low birth weight--39-50% higher
   Complications are more likely such as toxemia, cephalo-pelvic disproportion, congenital anomalies, anemia, prolonged labor, post-partum infection and hemorrhage.

2. Financial risks
   Unemployment or low-paying jobs
   Poverty
   Welfare recipients
   Few chances to improve situation
   No father present to provide income

3. Educational risks
   Delayed or terminated education
   Little chance for education beyond high school for either female or male parents

4. Marital risks
   Forced marriage
   More children
   Marital instability
   Separation or divorce
   No father in the home

*Compared to women 20 years of age and older.

Any of these factors may affect the child. Children of teens are more apt to suffer from lower IQs and achievement levels than their peers. They are more likely to repeat a grade or require special educational assistance. In the general population, the odds of having a retarded child are 1.5 births out of 100; for a young teenager, the odds accelerate to 40 births out of 100. Several factors conspire to produce this high rate in teenagers: drug and alcohol use, cigarette use, improper nutrition, lack of prenatal care, and inadequate development--"babies having babies" (Landers, 1984). There is an increased probability that they, too, will become teenage parents; the likelihood is 82% (Guttmacher, 1981).

Approximately 60% of teenage pregnancies result in live births, 10% end in miscarriage, and 30% of pregnant teens obtain abortions. Adolescents account for one-third of all legal abortions performed in the U.S. (Green & Potteiger, 1977; Monson, 1981).

General intervention. The 1981 Guttmacher report recommends sex education, family planning services, pregnancy counseling, abortions, services, and assistance to teenage parents. It urges emphasis on reaching younger teenagers with information before they become sexually active and developing better contraception for adolescents.

The Male Teen Program in Atlanta reaches its target population via peer counselors and public service announcements. Radio programs have been successful in educating young males who are reluctant to come to clinics. Teenage fathers are apt to have less education, less income, and more children than those males who postpone fatherhood until age 20 or older. Studies show that male attitudes influence female contraceptive use. If the males are informed about birth control, it does increase contraceptive usage (Gilgun, 1982/83).

A successful outreach program was developed in 1979, in Nassau County, New York by Planned Parenthood to stem the high incidence of unwanted pregnancy, to provide quality sex education, and to encourage parent participation (Rosen & Weinstein, 1982). The program focused on values, moral reasoning, and approaches to problem solving rather than just sexual behavior itself. The rights of teenagers who chose not to be sexually active were preserved. The program was presented mainly in the schools, churches, social service agencies, and youth groups. A similar format was implemented for parent groups. Audience participation was invoked to express any questions or concerns of the material covered. The program has been well received and results seem promising.

Dryfoos (1984) concludes that for some adolescents, knowledgeable and informed attitudes will be sufficient in making sexually responsible decisions, and for some other young people, access to effective contraception will be adequate to control fertility. But many youngsters may have problems in acquiring the necessary knowledge or changing their sexual behavior. They become parents by default. Girls with low self-esteem, low school achievement, and low aspirations are more likely to become pregnant. If these young women drop out of school, they may be functionally illiterate, with no job skills. Dryfoos thinks that the real focus of the issue then is the necessity to broaden life's options. The disadvantaged child needs a program that concentrates on:

1. Assistance to remain in school.

2. Learning to read and write.

3. Developing vocational skills.

4. Learning employable skills.

Planned Parenthood is promoting a program called "National Teen Pregnancy Alert" to reduce the number of unwanted pregnancies by 100,000. Their plan is to beam a variety of messages towards teenagers:

1. Ads on radio and TV will inform teens of sex education and family planning services available through Planned Parenthood.

2. A hotline number will provide confidential information about contraception and sex education.

3. TV and movie stars will tell teens they need to be informed about their bodies.

4. Ads in teen magazines will relate first hand accounts of teens and their problems with unplanned pregnancies.

The National Urban League is launching a community based program to offset the disproportionately high rate of teenage pregnancies among blacks. This program will emphasize counseling and educational activities stressing prevention and responsibility (Jacob, 1983/84).

School intervention. School personnel, including principals, teachers, counselors, nurses, social workers, and psychologists may all be involved with pregnant teenagers to varying degrees. Most agree that certain interventions may be necessary (Lewis, 1982):

1. Referral to another agency or a physician for medical and/or counseling needs.

2. Encourage the student to tell her parents and her partner.

3. Decision-making concerning the pregnancy—presenting all options and exploring the possibilities.

4. Checking to see if the student has come to any decisions and following up on those decisions.

5. If she elects to go through the pregnancy, helping her to obtain prenatal care.

6. If she elects to keep the baby, assisting her in learning about child development.

7. Helping her to stay in school. Alternative programs may help the most—group counseling with other pregnant peers is beneficial.

8. If financial assistance is needed, helping her apply for aid.

9. On-going counseling may be necessary throughout her pregnancy and afterwards.

10. Follow-up through phone calls in order to monitor the situation.

11. Seeing that the girl receives birth control advice whether she remains pregnant or not.

If the psychologist aids the girl in getting a pregnancy test, she will most likely have to make the appointment herself. If she wishes to do this without parental permission, Planned Parenthood offers this service as well as Florence Crittenton. If she has no transportation, she may depend on the psychologist to take her and be present with her for moral support during the appointment. The appointment should be made for after school, otherwise you will need parental permission to take the girl out of school. Also, the urine sample will have to be refrigerated until it is tested, so the logistics of this will have to be figured out. If the test is positive, the girl will then require medical care. Florence Crittenton and Catholic Charities provide prenatal care and adoption services.

Counseling intervention. Some guidelines that a psychologist will want to use in problem pregnancy counseling are: establish a connection, build a climate of trust, try to understand her point of view, help her acknowledge her fears of loneliness, and tell her the decisions are hers to make. The psychologist's role is to clarify her choices and to be supportive (Beresford, 1978).

The girl may feel trapped and overwhelmed. She needs to be made aware of her options for her life, both with a baby and without (Witt & Michael, 1982; Beresford, 1978):

1. She can marry the boy who got her pregnant.
2. She can keep the baby and raise it herself.
3. She can give the baby up for adoption. There are many responsible, loving families who might be right for the baby.
4. She can have the baby and release the child to foster parents until she is old enough or better equipped to care for it.
5. She can have a legal, medically supervised abortion.

She should not allow time or circumstances to make the decision for her. Her whole future will be determined by the choices she elects in the next few weeks and months (Witt & Michael, 1982).

Adoption. A recent study (Healy, Sperling & Stewart, 1984) finds that adolescent unwed mothers who will surrender a child for adoption are more sophisticated, better students, and have more long-range plans than those who keep their babies. Single parent mothers appear to be dependent on the infants for love, and want to counterbalance any deficits in their lives. The teen mothers who relinquished their babies had thought through their financial situation, the effects of a single-parent household on their child, and the interference an infant would represent to their education and career plans.

Intervention. Inform the student of her options, and put her in touch with agencies that will assist her in her pregnancy and with the process of adoption, such as Florence Crittenton, Catholic Charities, Birthright. Help her make contacts. Monitor her situation, encourage her to remain in school.

Endometrial Aspiration. Another name for this procedure is vacuum extraction, and is a technique to terminate a pregnancy. This method poses small risks and can be performed in a doctor's office. If a girl has missed a menstrual period, but is less than 14 days late or less than 2 days from the first day of last period, she may prefer this procedure. It is less expensive and safer than an abortion (Planned Parenthood, 1984).

Abortion. The earliest known prescription for abortion was discovered in China and written about in 2700 B.C., "Shui yin tastes bitter . . . and contains poison. It is a specific for ulcers . . . causes abortions, and cures fevers . . ." (Liebermann & Peck, 1981, p. 124). Abortion is a method of limiting births by terminating an unwanted pregnancy. Every year, adolescents account for almost one-third of abortions, nearly 450,000 in 1980 (Baldwin, 1984). A 1979 Gallup survey found that 80% of teens felt that abortion should be legal under any and all circumstances, and a 1979 Harris survey discovered that 73% of teens believe decisions about abortion in the first trimester should be made by the pregnant female and her physician.

Intervention. Abortion is legal and teenagers do have the right to have one, if they so decide. It is a controversial issue, and each person has to determine for themselves what is best. All counseling issues should be explored by the pregnant adolescent and preferably under professional guidance. The psychologist should initiate some process of discussion and referral. Time is of the essence, and the girl needs to understand that she only has a short while to reach a decision. Referral to an organization offering pregnancy-counseling is appropriate. Planned Parenthood explores all options with a teen who has a problem pregnancy, so that she can determine her best choice. This agency also encourages the girl to include her parents and the father of the child in the counseling process. Birthright, Catholic Charities, and Florence Crittenton furnish support for the girls who do not want an abortion, but wish to keep the baby or give it up for adoption. Mental health agencies provide counseling services also.

If a girl does conclude she wants an abortion, it does not mean that she hates children, never wants to have any, is a bad person, does not love her boyfriend, or likes the idea of having an abortion. It means, for now, that she feels this alternative is the best (Bell, 1980). The psychologist must follow-up to know if the girl was able to find abortion services. Doctors and Planned Parenthood can furnish list of available services. Monitor the girl through phone calls or brief sessions to ascertain if she is in need of counseling or further services.

Sexual Health

Teens may hazard all the difficulties that adults face in maintaining their sexual health. In fact, young people may be more at risk. Adolescents may not recognize or lack access to what is required for personal hygiene.

Intervention. If children are not keeping clean, the school often becomes the first line of defense. School personnel, such as the teacher, nurse, counselor, social worker, or psychologist, may be nominated to supply hygiene education. A home visit may be essential. If a whole class is having problems—such as a special education class—a unit on hygiene, referring to daily bathing, frequent shampooing, use of deodorant, and wearing clean underwear and clothes may be necessary. Stress the fact that they will receive more approval from their classmates and others. Girls may require information on upholding a hygienic routine during their menstrual period.

STD. The term sexually transmitted disease (STD) replaces the older term of venereal disease (VD). Usually STDs are transmitted through direct, physical contact; genital-genital or oral-genital. There are approximately 20 types of STD, and it is estimated that 10 million Americans are infected every year. Young people between ages 15 to 30 account for 85% of the cases (Iowa State Department, 1979). More than 300,000 babies are born with STD transmitted from their mothers. Of these infants, about 10,000 die the first few days of life; 8,000 suffer from brain damage, resulting in mental retardation, blindness, deafness, and spasticity; and 100,000 sustain a variety of eye and respiratory infections (Hyde, 1983). STD plays a part in pelvic inflammatory disease (PID) in one million cases. It is estimated that one out of every eight or nine adolescents acquires STD.

The common warning signs of STD that symptomize the early stages of these diseases are: painful urination, unusual discharge (penile or vaginal), skin changes (blisters, sores, rashes, or warts) in the genital area, mouth or throat, itching, and/or abdominal pain (Hyde, 1983).

Young people should be checked by a physician if they have any of the above symptoms. Fear and embarrassment may keep them from seeking treatment, in hopes that the disease will just "go away" (Lieberman & Peck, 1981), but early treatment may prevent future suffering, complications, and interdict the spread of the disease (Hyde, 1983). The individual with a STD should not have intercourse until being treated and cured and should also inform their partners.

Intervention. If a psychologist suspects that any student may have been exposed to STD, or is actually infected, it is imperative that the person receive medical help. See that the school nurse is involved. Many STD's can do serious bodily damage if not treated promptly (Planned Parenthood, 1979). STD's may be highly contagious when active. Public Health Clinics, family planning clinics, and doctors can offer assistance. Follow-up to guarantee that everything possible is being done for the student. Minors in Iowa can be examined and treated for STD's without parental permission.

Premenstrual Syndrome (PMS). PMS is a condition that may affect 70 to 90 percent of females at some time during the childbearing years. At any given time, 25 to 54 percent of menstruating females are troubled by PMS (Wilhelm-Hass, 1984; Seach-Koll, 1984). PMS can appear at anytime, but seems to be more prevalent during one's 20's and 30's. The onset of increased severity frequently occurs when rapid hormonal changes are taking place, as in puberty, after pregnancy, when discontinuing oral contraceptives, or after an irregular menstrual period (Wilson, 1984).

Some common symptoms of PMS include: tension, depression, crying, irritability, anxiety, difficulty in concentration, fatigue, cramps, headaches, migraine, backache, bloating, and breast tenderness. The person usually experience only a few of the above. A person may feel out of control, unable to cope, crave sweets, salty foods, and alcohol. She may gain three pounds or more prior to her period. PMS is diagnosed through identifying the symptoms and the time of occurrence. If symptoms are observed before a person's menstrual period and disappear during or after, the individual may possibly have PMS. A daily record of the girl's symptoms, the severity, and time of occurrence over at least a three-month period, is necessary for the induction of a pattern.

Intervention. Behavioral symptoms are correlated with PMS, so psychologists must be aware of the possible part this newly recognized condition might play in an adolescent girl's problems. By working with teachers, school nurses, and the student, possible PMS may be identified through charting. The student may need to visit a physician who would want to see the chart. Dietary changes requiring the elimination of caffeine, chocolate, sugar, and salt—a week to 10 days before a girl expects her period—may be of benefit. Besides three meals, three high protein snacks may ward off depression and fatigue. Exercise, rest, and stress reduction ease tension and improve overall health. Vitamins B6 and magnesium are reported to improve symptoms, but this should be approved by one's doctor (PMS, 1984). Over-the-counter medications are available and prescriptions drugs, including antidepressants and tranquilizers, have relieved symptoms in some cases (Search-Koll, 1982). Physicians can prescribe progesterone treatment in severe cases (Wilhelm-Hass, 1984).

Dysmenorrhea. Dysmenorrhea—a painful menstruation—is estimated to be present in 40%-80% of the female population. The primary type is coincidental with the onset of ovulation—one to three years after menarche (Wilson, 1984). It may prove incapacitating and girls may lose school days because of it. Adolescents are often not believed when they present symptomatic complaints. An excess of five time the normal amount of prostaglandins causes dysmenorrhea (Budoff, 1981).

Intervention. The girl's complaints should be believed until proven otherwise. There are many nonprescription remedies available at drug stores, such as aspirin. If a case is severe, the girl should be encouraged to see a physician. Prescription medicines, such a oral birth control pills and anti-inflammatory drugs, do help (Budoff, 1981; Wilson, 1984).

Toxic Shock Syndrome (TSS). TSS is a newly recognized disease that, while rare, does menace women under 30 years of age at the occasion of the menstrual period. Girls younger than 19 account for 42% of TSS cases (Litt, 1983). Females who use tampons and suffer flu-like symptoms during their periods are suspect, and should remove the tampon and see a physician immediately. The disease progresses quickly and can be fatal (U.S. Department of Health, 1980).

Cancers of the sexual organs may afflict teens. Early warning signs are well established. The American Cancer Society, Planned Parenthood, and school nurses have pamphlets and instruction on the proper procedure for self-examination.

Breast cancers are mostly discovered by women themselves. Those cancers treated early have superb chances for cure. Every girl should learn how to do a monthly breast exam (American Cancer, 1975).

Uterine and cervical cancer are diseases that may affect females who are sexually active with multiple partners. Nearly all cancers of the uterus can be detected via the Pap Smear. This test can be performed by a physician or at clinics like Planned Parenthood. The test should be performed at least every one to three years.

Testicular cancer is a disease that is more prevalent among the older adolescent and young male population. Males should check themselves monthly for any lumps. Early detection and treatment guarantee a better change for cure.

Anorexia nervosa may be a consequence of cultural confusion involving sex role expectations (Hansel, 1984). This disease involves purposeful dieting, usually by young females, which results in drastic losses of body fat. These girls may have menstruated earlier and displayed earlier physical maturation (Christenson, Richards, & Evans, 1982). The malnutrition regresses the physicial sexual development, including breast and hips, and results in amenorrhea, and loss of libido. Thus, these persons may avoid sex by forfeiting their appeal. Some patients even admit that they choose to be asexual.

Bulimia is a disorder with epidosic patterns of binge eating which may be ended through purging by forced vomiting or enemas (Laube & Wieland, 1982). Bulimics seem to be more sexually unrestrained than anorexics (Hansell, 1984). Again, females are more prone to evidence this disorder by ten to one. Factors related to bulimia include societal standards of female attractiveness and encouragement of female vulnerability.

Drug and alcohol use is frequently linked with adolescent sexual activity. The loosening of inhibitions and the flight of judgment set-up the arena for promiscuous behavior and the indifference to contraceptive guard.

Psychologists need to be alert to signs of anorexia, bulimia, substance abuse, and sexual health concerns. School psychologists must stress to adolescents that they must accept a great measure of responsible participation in looking after their own health.

Sex Education

Much heated discussion has been fomented over the topic of sex education, and particularly, its priority in the school curriculum. Those opposed to providing sex education believe that knowledge about this subject causes experimentation and stimulation of mysterious impulses (Gendel, 1968). Statistics prove the reverse to be true (Dickman, 1982).

A trend is developing towards more involvement of the religious community in the sphere of sex education. Comprehensive curricula are presented by the Unitarian and the Presbyterian Churches. The Presbyterian program stresses the nurturing of healthy, basic attitudes about sexuality beginning with preschool age children (Meneilly, 1984).

Two influential sources of information for teenagers are their peer groups and television (Price, 1981, 1982). PBS's discussion series, "Feelings . . . with Dr. Lee Salk" is an especially worthy program for young people in that it presents their thoughts and feelings about sex (O'Brien, 1981). "Choices: The Mating Game" sponsored by the Chicago-based Ounce of Prevention Fund is a new PBS special for adolescents (Brown, B., 1984). Serious advice mixed with contemporary comedy confronts the teen characters with a decision-making maze about birth control, STD's, and teen pregnancy. Role reversal—when a boy becomes pregnant—is the highlight of one segment. Network programmers are now entering the educational field, undertaking sexual topics in the context of regular programs, and often, TV shows designed for teens are dramatizations about SAY.

Parents often abdicate their roles as sex educators. They fear their own ignorance and conflicts, their childrens' attitudes, and outside pressures and influences on their children. They may subconsciously fear violating privacy between parents and children by opening up the topic of sex. Still, in spite of these fears, most educators believe that parents should be primary educators of their children (Gordon, 1982; Jawonski, 1980). Only a few organizations or people have really assisted parents in this role although Planned Parenthood affiliates do provide programs for parents as well as educational materials. Parent seminars on adolescent sexuality are co-sponsored by the National PTA and March of Dimes Birth Defect Foundation. These seminars are designed to help parents communicate with their children about sexuality (March of Dimes, 1983). These programs have been well received in parts of Iowa and the rest of the U.S. In 1984, over 20 national groups embracing national church councils, NEA, SIECUS, YMCA and YWCA have formed a coalition sponsored by the National Family Sexuality Education Month (NFSEM) and the Planned Parenthood Federation. This coalition will concentrate on methods in which each member organization can assist parents obtain skills and information for educating their children.

Some suggestions (Gordon, 1982; Jawonski, 1980) that may be beneficial for psychologists to use to help prepare parents to discuss sex with their children are:

1. Parents should talk over what they know about human reproduction, puberty, feelings, contraception, masturbation, homosexuality, STD's, sexual abuse, and other exploitive behavior with their children as they grow.

2. Parents should express their own values. Children may not fully accept them, but at least will know what they are.

3. Parents should not jump to conclusions about their children's sexual activity. Check with them when they are not upset. Carrying a condom or pills may be only to impress one's peers.

4. Discuss possible consequences of sexual activity.

5. If a child is sexually active, the chances are slim of altering that behavior. Do not forbid SAY from seeing the partner. It will just force the relationship underground. Keep the lines of communication open. Try to find out what the relationship is like, if they are going to marry, why they are having sex, and if they are protecting themselves.

6. Parents need to talk about emotional consequences, not just medical ones of possible pregnancy or venereal disease. The breakup of a sexual relationship may have severe effects on teenagers. Depression may be a result, as well as mourning the relationship and loss of self-confidence.

7. Parents need to express their unconditional love, concern, and respect.

Very little sex education is actually tendered in the public schools—fewer than half and maybe just a third teach any sex education at all. Fewer than one-third of U.S. public school students receive instruction on contraception (Leepson, 1981). State educational policies on sex education are listed in Figure 5.

Figure 5. Sex Education Policies by State

Require Schools to Offer Courses
District of Columbia
Maryland
New Jersey

Encourage Schools to Offer Courses
Delaware
Iowa
Kansas
Minnesota
Pennsylvania
Utah

Decision by Local Jurisdiction
Arizona
California
Connecticut
Florida
Georgia
Idaho
Illinois
Louisiana
Massachussets
Michigan
Nebraska
Nevada
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Tennessee
Virginia
Washington
Wisconsin

No Policy on Sex Education
Alabama
Alaska
Arkansas
Colorado
Hawaii
Indiana
Kentucky*
Maine
Mississippi
Missouri
Montana
New Hampshire
Oregon
Rhode Island
South Carolina
South Dakota
Texas
Vermont
West Virginia
Wyoming

*Kentucky requires that sex education be part of mandatory health education, but has no significant policy dealing with it (Leepson, 1981, p. 639).

"Opposing sex education would make it the only area of human knowledge where ignorance is assumed to be better than information." (Gordon & Dickman, 1980, p. 3). The indications are that the most sexually active youth are generally the ones who know the least. Good sex education programs tend to reduce teen pregnancies (Zelnik & Kim, 1982), and lower the incidence of venereal disease by 10 to 20%. Some evidence suggests that teens who are able to discuss sexual matters with their parents are more prone to delay sexual intercourse (Gordon & Dickman, 1980).

A good sex education program would muster information on contraception and prophylaxis. It would provide the means for the enhancement of self-worth, an understanding of love and the sexual component of life, a better preparation for marriage and parenthood, and responsible sexual decision-making (Gordon & Dickman, 1980).

Sex education for the handicapped. The Journal of School Health, in a survey of deficient children, noted that only 7% had received any form of sex education in school (Dickman, 1981). In order to avoid problems and confusion, it makes sense to provide sex education. Pre and post-testing have demonstrated that many handicapped individuals can learn about this topic. It can be tentatively stated that accurate sex information leads to more responsible sexual behavior in this population (Kempton, 1974).

Particular attention needs to be paid to developing socialization skills. Handicapped children need to know what is appropriate and acceptable, since they are more vulnerable. They need to learn about exploitive behavior on the part of others, so they do not become victims of sexual abuse. They can be taught techniques to protect themselves, just as normal young children can.

Material should be presented objectively, and as early as four or five years of age. A sequential pattern, which includes repetition and reinforcement, is needed in working with children who are handicapped (Gendel, 1968). Simple explanations and the relating of material to already known or familiar information aids learning. Specialized teaching material and anatomical models are especially good for this group (Dickman, 1981).

A successful teaching tool devised for reaching the handicapped is the Circle Concept. It is a self-organization system for teaching appropriate social/sexual behaviors. This concept was found to be adaptable to every subject matter in sex education, including increasing intimacy in relationships, assertiveness, decision making process, rights and responsibilities of partners (Champagne & Waker-Hirsch, 1982). Ten principles are presented concretely through multi-sensory techniques:

1. You are a special person.

2. No one touches you unless you want to be touched.

3. You do not touch anyone unless they want to be touched.

4. There are just a few people who hug you—mother/father, boy/girl friend.

5. There are others you give hugs to on special occasions, e.g., your best friend or a relative on his/her birthday.

6. You shake hands with acquaintances.

7. You wave to children.

8. You do not touch strangers.

9. You do not allow strangers to touch you.

10. You are a special person. You decide who can touch you—you decide when to say, "Stop, you're in my circle." (Champagne & Walker-Hirsch, 1982).

Teaching students proper distance and timing for social intercourse is important too, and can be included with the lessons. Frequently, handicapped students violate other people's personal space, and also may interrupt conversations of other people. These students do not recognize that they are being obtrusive.

Roger Mellott (1978) has some specific suggestions in teaching sex education to the handicapped:

1. Use a circle setting.

2. Create topics that include activities so everyone can participate.

3. Use humor and positive reinforcement.

4. Use open-ended questions to facilitate participation.

5. Be accessible and honest in answering questions.

6. Be repetitious and predictable.

7. Explain fully; give reasons for or against doing something.

8. Check out the students' vocabulary. Their definitions may be incorrect. Ask them what they mean when they use certain words.

9. Use analogies; for example, explain menstruation by comparing it to a sprinkler system turning on to clean out the uterus.

Sex education for the juvenile offender. In 1979, Planned Parenthood of Omaha-Council Bluffs was asked by the juvenile court system to facilitate a human sexuality program for court-ordered adolescents (Steinhausen & Steinhausen, 1982). These juvenile offenders were both male and female, ages 11 to 17. Their histories included teen pregnancies, incest, rape, poor family relationships, drug abuse, and truancy. A curriculum was developed to increase their sexual knowledge, and to improve their decision-making processes. This program was a mandatory part of the young offenders probation plan. The program evaluation results were favorable, and it is believed that these juvenile students did benefit from participation in this program.

Monitoring Methods

Methods of assessing sexual activity vary according to ages, degree of comfort, and intelligence of the children. Check the appendices for available materials on sexuality. Some resources for the school psychologist covering evaluation and discussion of sexuality and problematical areas in young people are listed in Figure 5.

Figure 5. Resources for psychologists.

Elementary School Children
- School referral
- Parent referral
- Self-report or referral
- Outside agency or professional referral
- Interview
- Personality questionnaires
- Play therapy
    - Puppets
    - Story telling
    - Fingerpainting
    - Dramatic play
    - Games
- Projective techniques
    - CAT
    - Drawings--HFD, DAP, KFD, HTP
    - Rorschach
    - Guess-Why-Games
    - Sentence completion
    - Psychodrama
    - Incomplete Story

Secondary School Children
- School referral
- Parent referral
- Self-report or referral
- Outside agency or professional referral
- Interview
- Personality inventories
    - Mooney Problem Checklist
    - Burks Personality Inventory
    - Behavior Problem Checklist

        - Personality Inventory for Children
        - Minnesota Counseling Inventory
    - Projective techniques
        - Drawings—HFD, DAP, KFD, HTP
        - TAT
        - Rorschach
        - Sentence completion

Interventions:

- Behavior modification techniques
- Individual therapy
- Group therapy
- Peer counseling
- Discussion of specific topics
- Education/information
- Role playing
- Self-concept exercises
- Modeling appropriate/acceptable behavior
- Building cognitive skills and practicing decision-making skills
- Values clarification exercises
- Media produced information and exercises
    - Movies
    - Slides
    - Film strips
    - Formal activities
- Referral to other staff members
- Referral to other agencies
- Acting as liaison
- Building life skills and job skills
- Evaluation
- Placement

Informational pamphlets are available from many sources free or at a nominal cost. Some of these local sources are: Planned Parenthood, Birthright, Florence Crittenton, Battered Women and Children Council, Cancer Society, March of Dimes, and the Health Department.

Further questioning or exploring of a student's response will aid in pin-pointing the coordinates of a specific problem. Some issues may be dealt with on a simple basis; others will, of course, require more time and effort. Whatever the nature of the problem and its outcome, monitoring or tracking is dictated. Short sessions with a student may be all that is necessary. Other methods of intervention have been described in this paper.

A variety of programs have been successful. An innovative type of program called teen theater is employed in some schools in the U.S., beginning about 10 years ago. Planned Parenthood is the sponsor. Young people act out different scenes covering topics such as dating, drugs, drinking, and petting. Then the actors involve other students in finding solutions to the dramatic dilemmas (Pugni, 1984). Illusion theater for children and adolescents concentrating on sexual abuse and types of touch is another example of an imaginative approach (Kent, 1981). Peer counseling specifically set up for certain hours and by self-referral is proving popular and useful. Anonymity can be maintained. Radio and TV programs geared purposefully for imparting information to the younger generation are less threatening to some individuals since they can preserve their privacy. TV shows can also be employed as launch sites for dialogue between children and adults (Price, 1981/1982). Teen clinics providing several types of health services, at the school site have cut down on pregnancies. Teen hotlines manned by trained students and back-up professional personnel can answer questions and provide assistance as needed (Somerville, 1982).

Psychologists should seek to do more than give "band-aid" services to students. By supporting sex education programs or other types of informative services, we all will profit by prevention.

Conclusions and Considerations

Standards for sexual conduct in America have been stretched in the last 20 years. The double standard has been dealt a severe blow as premarital coitus becomes more acceptable for both sexes (Miller & Simon, 1980). Yet associated values are still being sorted out, and most Americans remain committed to family and marriage. Sex is once again linked with affection (Leo, 1984a).

Fear and guilt that society attaches to the expression of human sexuality remain the biggest problems of all. This ignorance is supported by those who stubbornly refuse to enlighten themselves and consequently, their children with attitudes and understanding that might bring happiness and sexual peace into their lives (Calderone & Johnson, 1981).

Obviously, much confusion and conflicting opinions continue to roil the waters. More scientific research, surveys, and questionnaires should be advantageous in the acquisition of the best methods to help our children adjust and become the sexually fulfilled people they were meant to be.

Educators need to exhibit courage and stand up for inclusive sex education and innovative prevention programs, and not be cowed by a minute but vocal minority. Scales (1978) states:

> We are so afraid of controversy and negative "community" reaction (which occurs in about one percent of the cases) that we create just what we don't want: People who can be fooled and exploited, because we kept them from knowing what was "out there." We do a grave disservice to all when we allow fear to provide the energy for social action. The fact is that the majority of our citizens favor abortion rights, favor sex education, and teenagers' access to birth control . . . (p. 8).

Psychologists must be like the Socratic gadfly, prepared to sting the students with blunt and sometimes embarrassing questions--the answers to which will then create the matter of a more profound understanding of human sexuality. If this would require audacity--and it does--then its effects must go beyond individual counseling into group and peer arrangements and ultimately to the teaching of a section of sex education itself. Psychologists should put themselves in the front rank as providers of inservice for parents, teachers, and other staff members. Psychologists should make themselves available as canny resource persons, uncondescending when assisting instructors in the patient perfection of the individual's cognitive skills--with decision making paramount--or in the sophisticating of their social skills--with the classroom as model.

Then why not a sort of benign conspiracy--by professionals and parents--to produce the student whose informed will can get for him or her, not absolutely the good life--but possibly, the good life?

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Appendices

A-J

APPENDIX A

Informal Survey of Citizens about Sexuality and the School Age Child

Over 100 people were informally polled by this psychologist with regard to their views of sexuality and related problems in the school age child. These repondents included older citizens, parents, AEA personnel (school psychologists, school social workers, consultants, speech clinicians, and supervisors), former students, teachers, school counselors, school principals, school liaison agents, school nurses, professors of education, ministers, doctors, and personnel from social agencies. The interviews took place between May and November, 1984.

Those interviewed showed concern that children are often confused, lacked knowledge, social skills, and cognitive skills. While they may pretend to sophistication, children are in fact often pressured to be sexual by their peers, by the media, and by the effect of drugs. Young people often have no one with whom they feel comfortable discussing sexual matters. Family dynamics, different value systems, and a changing social scene ranked as major influences giving the children mixed messages about sexuality. Masturbation, body image, pregnancy, sexual curiosity, homosexuality, sexual intercourse, sexual abuse, and sexual health were all mentioned as tribulations. They become anxious over these issues and often lack coping skills. They do not know how to handle boy-girl relationships effectively.

The recurrent theme expressed by most of these people was the need for comprehensive sex education in the junior high schools, if not the elementary. All topics should be included. Parent involvement with their children, whether on sex education or in other ways, takes high precedence. Open communication was deemed essential. Information and services must be made more available.

APPENDIX B

Informal Survey of Students about Sexuality and the School Age Child

Fifty children were informally polled by this psychologist about their opinions on sexuality and related problems in the school age child. Forty-five were high school students, five were junior high age students. Thirty-seven of the high school students wrote down their thoughts for an English composition class. The remainder of 13 were interviewed face-to-face. The interviews took place between May and November, 1984.

Several girls mentioned the pressure boys brought to bear on girls to have sex. Many students thought that girls should use protection if they are giong to b sexually active. Others stated that girls should learn to say "no." Girls asked why guys can boast about conquests while the girls are made to feel guilty and embarrassed. Girls may be called sluts, while guys are studs for the very same behaviors. Many felt that you should only have sex with someone you love or you should wait until you are married. Several said that teens do not have enough information. A suggestion was made for a "hot-line" to provide that service. Many thought sex education should be a "must." Some said sex could be the "funnest thing in a person's life or the worst." The biggest dilemma for these adolescents was whether to have sex or not and on what occasion. They were very concerned about honesty and openness and the difficulties the males have in showing their feelings. Some could not see any risk in being sexually active until one of their friends became pregnant or had an abortion. They wished to know what services are available for contraception and abortion.

APPENDIX C

Resource Materials on Sexuality for Selected Populations

1. ED1911817 SP016528: Seminars for Parents on Adolescent Sexuality. Leaders Guide. Family and Community Health Through Caregiving. Education Development Center, Inc., Newton, MA, 1978, 148p. For related documents, see SP 016 523-526. Sponsoring Agency: Kellogg Foundation, Battle Creek, MI; March of Dimes Birth Defects Foundation, Washington, D.C. Available from: Education Development Center, Inc. 55 Chapel Street, Newton, MA 02160 ($7.50).

2. ED168263 EC114069: Human Awareness Program: A Sex Manual for Use in Juvenile Court Schools. Peter, Barbara. California Juvenile Court Schools Training Program, San Jose.; California State Department of Education, Sacramento; Santa Clara County Superintendent of Schools, San Jose, CA. January, 1979, 97p. For related information, see EC 114 070-072. Sponsoring Agency: Bureau of Education of the Handicapped (DHEW/DE), Washington, D.C. Available from: California Juvenile Court Schools Training Program, 100 Skyport Drive, San Jose, CA 95110 ($5.75).

3. ED232088 CG016782: Selected Resources in the Areas of Adolescent Sexuality and Teenage Pregnancy (for counselors, school psychologists, teachers, and school nurses). Glimps, Blanch E., 1982, 15p.

4. ED229685 CG016656: Teacher Workbook on Family Life Education. Knight, Susan E. & Thornton, Carla E. California University, San Francisco, 1982, 96p. Prepared in the Department of Psychiatry. Sponsoring Agency: Department of Education, Washington, D.C.

5. ED226527 EC150700. Sexuality and the Handicapped. Glimps, Blanche E., November, 1982, 19p. Print is variable and poor in parts.

6. ED206941 CG015043: You and Me and Human Sexuality: A Student Booklet Written for Deaf Adolescents. Texas School for the Deaf, Austin, 1980, 117 p. For related document, see CG 015 042. Sponsoring Agency: Office of Education (DHEW), Washington, D.C. Available from: Texas School for the Deaf, 1102 South Congress Avenue, Austin, TX 78704 ($6.50).

7. ED206940 CG015042: You and Me and Human Sexuality. Teacher's Manual. Young, Emily Morrill, Texas School for the Deaf, Austin, 1980, 132p. For related document, see CG 015 043. Sponsoring Agency: Office of Education (DHEW), Washington, D.C. Available from: Texas School for the Deaf, 1102 South Congress Avenue, Austin, TX 78704 ($600.00.

8. ED197879 RC012464: Choices & Careers; Free to Choose: Just for You. Book III and Leaders Guide (for American Indian population. Finley, Cathaleen, Wisconsin University, Madison, University

Extension, 1978, 54p. For related documents, see ED 158 936-944 and RC 012 455-563, RC 012 465-470, and RC 012 507. Sponsoring Agency: Extension Service (DOA), Washington, D.C. Available from: Women's Education Resources, University of Wisconsin Extension, 430 Lowell Hall, 610 Langdon Street, Madison, WI 53589 ($2.00).

9. EJ246403 SP510829: Teaching Sex Education to Multiply Handicapped Adolescents, Smigielski, Patricia A. & Steinmann, Mary J. Journal of School Health. Vol. 51, No. 4, p. 238-41, April, 1981. Available from: Reprint: UMI.

10. EJ235348 SP509932: Family Life Education for the Handicapped, Gordon,, Sol & Synder, Craig, W. Journal of School Health, Vol. 50, No. 5, p. 272-74, May, 1980. Available from: Reprint: UMI.

11. EJ233212 SP509901: Teaching Human Sexuality in Junior High School: An Interdisciplinary Approach. Kapp, Lucy & Others. Journal of School Health, Vol. 50, No. 2, p. 80-83, February, 1980. Available from: Reprint: UMI.

12. EJ261637 EC142043: Taking on the Social Scene (Development of social skills for the physically disabled adolescent), Rousso, Marilyn, Exceptional Parent, Vol. 12, No. 1, p. 21-25, February, 1982. Available from: Reprint: UMI.

13. EJ226606 SP509588: Multi-Media Approach to Group Counseling the Preadolescent Girl (changing body image), McCue, Ann E. Journal of School Health, Vol. 50, No. 3, p. 156-159, March, 1980. Available from: Reprint: UMI.

14. 69-03979, Vol. No.: 69 Abrstact No. 03979: The Hispanic Female Adolescent: A Group Therapy Model,, Hardy-Fanta, Carol & Montana, Priscila, Cambridge Guidance Center, Gross-Cultural Program, MA International Journal of Group Psychotherapy, Vol. 32(3), p. 351-366, July, 1982. ISSN: 00207284.

APPENDIX D

Programs & Materials for Sociosexual Education for the Handicapped

General

1. Cornelius, D., Makas, E., & Chipouras, S. (1979). *Sexuality and disability: A selected annotated bibliography*. (Available from Regional Rehabilitation Research Institute on Attitudinal, Legal, and Leisure Barriers, George Washington University, 1928 L Street, N.W., Washington, D.C. 20036).

2. Jackson, J. (1980). *Models of human genital anatomy*. (Available from J. Jackson, 33 Richdale Avenue, Cambridge, MA 02140).

3. *Mildly handicpaped: Sex education, secondary level* (1978). (Available from Publications Sales Division, The Ohio State University, Columbus, OH 43210).

Visual Handicap

1. Allen, P. & Lipke, L.A. (1974). *Your changing body: A guided self-exploration*. Highland Park, IL: Perennial Education.

2. Ballou, M., Bloomemfeld, W., Deyoe, D. & Guranacci, P. (1977). *Sex education and family life curriculum*. Watertown, MA: Howe Press.

3. Dickman, I.R. (Ed.) (1975). *Sex education and family life for visually handicapped children and youth: A resource guide* New York: American Foundation for the Blind.

4. *Sex education for the visually handicapped in schools and agencies: Selected papers* (1975). New York: American Foundation for the Blind.

5. Tait, P.E. & Kessler, C. (1976). The way we get babies: A tactual sex education program. *New Outlook for the Blind*, 70, 116-120.

6. Vogel, D.S. & Muxen, M.L. (1976). A sex education program for congenitally blind adults in a rehabilitation center setting. *New Outlook for the Blind*, 70(3), 104-108.

Behavioral Disorders

1. Partak, L. & Berner, G.P. (1977). Sex education and the behavior problem child. *Child Care Quarterly*, 6, 204-210.

2. Thurman, R.L. & Yard, G.J. (1978). Sex education and the behavioral disordered: A strategy pertinent to parents and professionals. *Behavioral Disorders*, 4, 53-60.

Mental Retardation

1. Gerhardstein, M. & Pinkerton, C. (Eds.) (1978). Sex education: Addendum to the curriculum area of "Understanding Self and Others" for use with the moderately, severely, and profoundly mentally retarded. Columbus, OH: Franklin County Program for the Mentally Retarded.

2. Human sexuality and the mentally handicapped (1978). Santa Monica, CA: James Stanfield Film Associates.

3. Kempton, W., Bass, M. & Gordon, S. (1979). Love, sex, and birth control for the mentally retarded: A guide for parents. Rev. (Available from Institute for Family Research and Education, Syracuse University, syracuse, NY 13210).

4. Pattullo, A. (1969). Puberty in the girl who is retarded. Arlington, TX: National Association for Retarded Citizens.

5. Sex education and related home and community functioning skill programs for severely handicapped students: Toward appropriate functioning in less restrictive environments (1978). Vol. 8, Pt 2. (Available from Madison Metropolitan School District, Specialized Education Services, 545 West Dayton Street, Madison, WI 53703).

6. Wish, J.R., McCombs, K.F. & Edmonson, B. (1979). Socio-sexual knowledge and attitudes test. Chicago: Stoelting Co.

Physical Handicap

1. Dickman, I.R. (Ed.) (1978). Sex education for disabled persons (Rev.). Public Affairs Pamphlet No. 531. (Available from Public Affairs Committee, 381 Park Avenue South, New York, NY 10016.)

2. Heslinga, K., Schellen, A.M.C.M. & Verkuyl, A. (1974). Not made of stone. Springfield, IL: Charles C. Thomas.

3. Mooney, T.O., Cole, T.M. & Chilgren, R.A. (1975). Sexual Options for paraplegics and quadriplegics. Boston: Little Brown.

4. Sandowski, C.L. (1976). Sexuality and the paraplegic. Rehabilitation Literature, 37, 322-327.

Resources Compiled by: Barbara Edmonson
Ohio State University
Columbus, OH

Additional Resources

1. Rezebek, R. (Ed.) (1979). *Human development and awareness for mentally handicapped - educable (ninth grade curriculum)*. From Woodrow Wilson Junior High & Western Hills AEA, Sioux City, IA.

2. Gunn, W. *Teaching parents to be the primary sexuality educators of their children*. Center for Disease Control, Building 6, Room 124, Atlanta, GA.

APPENDIX E

General Films

1. Dealing with Decisions

   Part 1 - Self-Awareness
   Part 2 - Information and Alternatives
   Part 3 - Risks and Pressures
   723-00-CSPQ
   Three-part program $140

2. Developing Social Skills: Learning Conversational Techniques

   Part 1 - Testing Your Social Skills
   Part 2 - Basic Social Skills
   Part 3 - Conversational Skills
   Part 4 - Advanced Social Skills
   722-00-CSPQ
   Four-part program $174

3. Human Sexuality and the Life Cycle

   Part 1 - Infancy and Childhood
   Part 2 - Adolescent Sexuality
   Part 3 - Adult Sexuality
   745-00-CSPQ
   Three-part program $140

4. Sexual Values: A Matter of Responsibility

   Part 1 - What's Important to You?
   Part 2 - Making Sexual Decisions
   3258-00-CSPQ
   Two-part program $108

5. Teenage Pregnancy and Prevention

   Part 1 - The Problem
   Part 2 - The Choices
   Part 3 - The Solutions
   632-00-CSPQ
   Three-part program $140

6. Values for Dating

   Part 1 - Pressures
   Part 2 - Traditional Values
   Part 3 - Love and Friendship
   Part 4 - Two Couples in Love
   3206-00-CSPQ
   Four-part program $174

APPENDIX F

General Curriculum Materials

Materials listed below can be obtained from Ed-U-Press, P.O. Box 583, Fayetteville, NY 13066.

1. A BASIC LIST OF SEX EDUCATION RESOURCES. A bibliography of organizations, books, audio-visual resources (most annotated), newsletters, publishing companies, and upcoming conferences. 35 pp. Computer processed. Continual updating. Spiralbound. $4.25.

2. AN EASY GUIDE FOR CARING PARENTS. Sexuality and Socialization. Lyn McKee and Virginia Blacklidge. Written for those with mental handicaps, but applicable to those with other developmental disabilities. Among other succinct sections on sexuality. Includes social and sexual expectations, responsible sexual behavior, marriage, children, birth control and problems related to sexual activity. Softbound. 1-5 $4.95 each; 6-25 $4.45 each; 26 + $4.00 each.

3. FINDING MY WAY. Audrey Palm Riker and Charles Riker. A down-to-earth sex education book based on actual interviews, many case studies. Sections include: role playing, personal values, sexual standards, biological development, pregnancy and pregnancy prevention, abortion, VD, different sexual expressions. Softbound. 272 pages. 1-5 $10.00 each; 6-25 $8.50 each; 26 + $6.75 each.

   TEACHER'S GUIDE. Linda Bancroft. Helpful strategies for successfully teaching sex education class. Includes objectives, chapter outlines, and sequential activities. Has pre-tests and post-tests, bulletin board ideas, references. 40 pages. Softbound. $4.00.

   STUDENT GUIDE. Kathryn A. Starzyk. Completion questions, matching, true/false, multiple choice, spelling exercises, crossword puzzles and word search puzzles. 56 pages. Softbound. $3.00.

4. KIDS WHO HAVE KIDS ARE KIDDING THEMSELVES. Sol Gordon. Startling statistics and truths about teenage pregnancies. Helps youth realistically understand this event. Cassettes, filmstrip, guide and YOU WOULD IF YOU LOVED ME. 1 set $24.00, 2 + sets $19.20.

5. PROMOTING SEXUAL RESPONSIBILITY AND PREVENTING SEXUAL PROBLEMS. George Albee, Sol Gordon & Harold Leitenberg (Eds.). This is the first book devoted specifically to the promotion of sexual responsibility and the prevention of sexual problems. New 1983. 464 pages. Hardback only. 1-5 copies $30.00 each, 6-25 $27.00 each, 26 + $24.00 each.

6. SEXUALITY EDUCATION FOR PARENTS OF YOUNG CHILDREN. A Facilitator Trianing Manual, Sally A. Koblinsky. Materials in the manual have been field-tested and widely praised by over 8,000 parents in 300 community education programs. 296 pages. Softcover. 8 1/2" x 11". 1-5 copies $11.95 each, 6-25 copies $10.16 each, 26 + copies $8.37 each.

APPENDIX G

Selected Readings on Human Sexuality for Preschool Teachers and Parents

For the Children

Gruenberg, Sidonie Matsner, (1970). The Wonderful Stody of How You Were Born. Garden City, NY: Doubleday & Company.

Mayle, Peter (1973). Where Did I Come Form? Secaucus, NJ: Lyle Stuart, Inc.

Sheffield, Margaret (1978). Where Do Babies Come From? New York: Alfred A. Knopf.

Showers, Paul (1969). A Baby Starts to Grow. New York: Thomas Y. Crowell.

Tepper, Sheri (1968). The People Know. Denver, CO: Planned Parenthood of Colorado.

Dealing with Sexual Abuse Prevention

Freeman, Lory (1982). It's My Body. Seattle, WA: Parenting Press, Inc.

Hindman, Jan (1983). A Touching Book. Durkee, OR: Mclure-Hindman Books.

For the Adults (Dealing with Sexual Abuse Prevention)

Allen, Charlotte Vale. Daddy's Girl.

Armstrong, Louise. Kiss Daddy Goodnight: A Speak-out on Incest.

Brady, Katherine. Father's Day.

Butler, Sandra. Conspiracy of Silence: The Trauma of Incest.

Forward, Susan & Buck, Craig. Betrayal of Innocence: Incest and its Devastation/

Fox, Robin. The Red Lamp of Incest.

Geiser, Robert L. Hidden Victims: The Sexual Abuse of Children.

Justice, Blair & Justice, Rita. The Broken Taboo: Sex in the Family.

King County Rape Relief (1979). He Told Me Not To Tell. Reston, WA.

Meiselman, Karen. Incest: A Psychological Study of Cases and Effects With Treatment Recommendations,

Sanford, Linda T. The Silent Children: A Book for Parents About the Prevention of Child Sexual Abuse.

Compiled by: Jackie Christerson-Knoepfler
Victoria Marquesen
Sioux City Planned Parenthood

APPENDIX H

Books, Pamphlets, and Journal Articles on Sexuality and Sexuality Education and Special Needs Groups

General topics for each citation are coded to the left of the reference. Topics include:

A = Attitudes and general knowledge of disabled individuals concerning sexuality
F = Topics dealing with the family, parenting issues, parents' attitudes, etc.
S = Sterilization issues
P = Professional training and education
E = Education programs or the results of programs to teach sex education
BD= Article dealing with people with behavior disorders
V = Article dealing with people with visual impairments, blind, and blind-deaf
D = Article dealing with hearing impaired/deaf
O = Article dealing with orthopedically handicapped/physically handicapped
G = General reference, resource guide, bibliography, health issues
LD= Article dealing with people with learning disabilities
PH= Article dealing with philosophical approaches, values involved

(Unless otherwise stated, the articles deal with mentally diabled/mentally handicapped individuals)

M = Marriage and the disabled
PU= Puberty and the disabled
BC= Birth control
R = General rights of disabled
SA= Sexual abuse

Hatfield - Sexually Active Children and Adolescents

TOPIC	
G	*A Bibliography of Resources in Sex Education.* New York: SIECUS, 1855 Broadway 10023, Special Report No. SP7.
G	*A Resource Guide in Sex Education for the Mentally Retarded* (1971). New York: Behavioral Publications, 72 Fifth Avenue, 10011, $3.95.
G	*A Resource Guide in Sex Educatin for the Mentally Retarded* (1971). New York: SIECUS and American Associatin for Health, Physical Education, and Recreation.
G	*A Selected Bibliography on Sexuality, Sex Education, and Family Planning for Use in Mental Retardation Programs* (1981). St. Paul, MN: Planned Parenthood of Minnesota, 1965 Ford Parkway 55116, $3.50.
BD	Abernathy, V. & Abernathy, G. (1974). Risk for Unwanted Pregnancy Among Mentally Ill Adolescent Girls. *Amrican Journal of Orthopsychiatry*. 44/
M	Abbot, J. & Ladd, G. (1970, April). ...Any Reason Why This Mentally Retarded Couple Should Not Be Joined Together... *Mental Retardation*.
F	Alcorn, A.A. (1974). Parental Views on Sexual Development and Education of the TMR. *Journal of Special Education*, *8*, 119-120.
A	Andres, J. (1976). An Investigation into the Attitudes and Sexual Behavioral Patterns of Black Mentally Retarded Adults. *Journal of Black Psychology*, 320-333.
M	Andron, L. & Sturm, M.L. (1973, February). Is "I Do" In the Repertoire of the Retarded? A Study of the Functioning of Married Retarded. *Mental Retardation*.
A	Atwell & Jamison (Eds.) (1977). *The Mentally Retarded: Awareness to Questions About Sex.* Los Angelos, CA: Western Psychological Services.
PU	Ayrault, E.W. *Helping the Handicapped Teenager Mature.* Pamphlet available from Public Affairs Pamphlets, 381 Park Avenue South, New York, NY 10016, 35¢.
E	Balaster, J.R. (1971). Sex Education: Fact and fancy. *Journal of Special Education*, *5*, 355-57.
E	Basic Guidelines for Developing Sex Education Programs of the Mentally Retarded (1970, January). *Focus on Exceptional Children*, *1*, (8).

M Bass, M.S. (1964, August). Marriage for the Mentally Deficient. *Mental Retardation*, 198-202.

BC Bass, M.S. (1968, Fall). The Prevention of Conception for the Mentally Deficient. *International Metal Health Newsletter*, *10*, (3).

R Bass, M.S. & Gelaf, M. (Eds.) (1973). *Sexual Rights and Responsibilities of the Mentally Retarded*. Santa Barbara, CA: Channel Lithograph.

F Bass, M.S., Kempton, W. & Gordn, S. (1971). *Love, Sex, and Birth Control for the Mentally Retarded: A Guide for Parents*. Philadephia, PA: Planned Parenthood of Southeastern Pennsylvania.

S Bender, H.A. (1977, February). A Geneticist's Viewpoint Towards Sterilization. *Amicus*, *2*, (2).

G Bigood, F.E. (1974, January). Sexuality and the Handicapped. *SIECus Report*, *2*, (3).

E Bloom, G.E. (1971). Some Considerations Abut the Neglect of Sex Education in Special Education. *Journal of Special Education*, *5*, 359-361.

E Bratlinger, E. (1983). Measuring Variations and Changes in Attitudes of Residential Care Staff Toward the Sexuality of Mentally Retarded Persons. *Mental Retardation*, *21*, 17-22.

F Braun, C.T. & Gram, M.R. (1969). *Counseling the Parent of the Mentally Retarded About Sex Education*. Minnesota Day Activity Center Association.

G Brenton, M. (1974, October). Sex and the Mentally Handicapped. *Physicia's World*.

E Brown, H. (1980). Sexual Knowledge and Education of ESN Students in Centers of Further Knowledge. *Sexuality and Disability*, *3*, 215-220.

M Bowdon, Spitz, Winters (1971, December). Follow Up on One Retarded Couples Marriage. *Mental Retardation*.

F Calderone & Johnson (1981). *The Family Book of Sexuality*. New York: Harper and Row.

E Champagne, M.P. & Walker-Hirsch, L.W. (1982). Circles: A Self-Organization System for Teaching Appropriate Social/Sexual Behavior to Mentally Retarded/Developmentally Disabled Persons. *Sexuality and Disability*, *5*, 172-174.

R Cochian, B. (1974, May). Conception, Coercion, and Control: Symposium on Reproductive Rights of the Mentally Retarded. *Hospital and Community Psychiatry*, *25*, (5).

G Cole, T.M. & Cole, S.S. (1976, May). The Handicapped and Sexual Health. *SIECUS Report*, *4*, (5).

PH Coleman, E.M. & Murphy, W.D. (1980). A Survey of Sexual Attitudes and Sex Education Programs Among Facilities for the Mentally Retarded. *Applied Research in Mental Retardation*, *1*, 269-276.

G Croft, A. & Croft, M.J. (1981). Sexuality and Mental Handicap: A Review. *British Journal of Psychiatry*, *139*, 494-505.

E Croft, A. & Croft, M. (1983). *Sex Education and Counseling for Mentally Handicapped People*. Baltimore: University Park Press.

E Daniels, S.M., Cornelius, D. Makas, E. & Chipouras, S. (1981). Sex and Disability: The Need for Services. *Annual Review of Rehabilitation*, *2*, 83-112.

BC David, H.P. & Lindner, M.A. (1975). Family Planning for the Mentally Retarded. *World Health Organization Bulletin*, *52*.

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G Delp, H.A. (1971). Sex Education for the Handicapped. *Journal of Special Education*, *5*, 363-364.

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O Dorner, S. (1977). Sexual Interest and Activity in Adolescents with Spina Bifida. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *18*, 229-237.

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E Edmonson, B. (1980). Sociosexual Education for the Handicapped. *Exceptional Education Quarterly*, *1*, 67-76.

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G Fischer, H.L. & Krajicek, M.J. (1974). Sexual Development of the Moderately Retarded Child: Level of Information and Parental Attitudes. *Mental Retardation*, *12*, 28-30.

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M Floor, L., Baxter, D., Rosen, M. & Zisfein (1975, April). A Survey of Marriages Among Previously Institutionalized Retardates. *Mental Retardation*.

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P Flinn, S. (1982). Preparing Teachers of the Deaf to Teach Sex Education. *Sexuality and Disability*, *5*, 230-236.

M Fotheringham, J.B. (1971, May 8). The Concept of Social Competence As Applied to Marriage and Child Care in Those Classified as Mentally Retarded. *C.M.A. Journal*, 104.

F Gendel, E.S. *Sex Education of the Mentally Retarded Child in the Home*. NARC, P.O. Box 6109, 2709 East Avenue East, Arlington, TX 76011, 35¢.

PH Gilgun, J. & Gordon, S. (1983). The Role of Values in Sex Education Programs. Journal of Research and Development in Education, 16, 27-33.

R/F Goodman, L. (1973, October). Sexual Rights of the Retarded—A Dilemma for Parents. The Family Coordinator.

F Goodman, L., Budner, S. & Lech, B. (1971). The Parents' Role in Sex Education for the Retarded. Mental Retardation, 9, 43-45.

E Gordon, S. (1971). Okay, Let's Tell It Like It Is (Instead of Just Making It Look Good). Journal of Special Education, 379-381.

E Gordon, S. (1971). Missing in Education: Sex. Journal of Special Education, 5, 351-354.

R Gordon, S. Sexual Rights for the People Who Happen to Be Handicapped. Ed-U-Press, 760 Ostrom Avenue, Syracuse, NY 13210, 50¢.

E Gordon, S. (1976, October). For People Who Are Mentally Retarded. The Exceptional Parent.

G Gottesman, Erlenmeyer-Kimling (Eds.) (1971, September). Differential Reproduction in Individuals with Mental and Physical Disorders. Social Biology, 18, Supplement.

R Gottschling, B.L. (1974). Human Sexuality Guidelines. Pennhurst State School and Hospital, Spring City, PA.

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G Hammer, S.L. & Barnard, K.E. (1966). The Mentally Retarded Adolescent. Pediatrics, 38, 845-857.

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P Informed Consent As It Relates to Family Rights. Planned Parenthood of Minnesota, St. Paul, MN.

F Jacobs, J.H. (1978). The Mentally Retarded and Their Need for Sexuality Education. Psychiatric Opinion, 15, 32-34.

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E Johnson, W.R. (1975). Sex Education and Counseling of Special Groups. Springfield, IL: Charles C. Thomas.

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F Kempton, W. Helping Parents Deal With The Sexuality of Their Retarded Child. Reprint from thePlanned Parenthood of Southeastern Pennsylvania, Philadelphia, PA.

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G Hall, J. Sexual Behavior of the Mentally Retarded. Center for Developmental Learning Disorders, 170 Seventh Avenue South, Birmingham, AL 35294.

F Kempton, W., Bass, M., & Gordon, S. Love, Sex, and Birth Control for the Mentally Retarded: A Guide for Parents. Planned Parenthood of Southeastern Pennsylvania, Philadelphia, PA.

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P Love, E. (1983). Parental and Staff Attitudes Toward Instruction in Human Sexuality for Sensorially Impaired Students at the Alabama School of the Deaf and Blind. American Annals of theDeaf, 128, 45-47.

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E McKee, L., Kempton, W. & Stiggall, L. An Easy Guide to Loving Carefully. Planned Parenthood of Contra Costa, Inc., 1291 Oakland Blvd., Walnut Creek, CA 94596, $5.95.

F McKee, & Blackledge. An Easy Guide for Caring Parents: Sexuality and Socialization. Planned Parenthood of Contra Costa, Inc., $5.95.

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S Whitcraft & Jones (1974, February). A Survey of Attitudes About Sterilization of Retardates. *Mental Retardation*.

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APPENDIX I

Curriculum Materials and Training and Teaching Aids Includes Filmstrips, Pamphlets, Etc. on Sexuality)

About Your Sexuality. Unitarian filmstrip series for junior high and up. *Teacher's Guide* includes sections on Learning Abut Sex, Braking the Language Barrier, Male and Female Anatomy, Birth Control, Conception and Childbirth, Masturbation, Same Sex Relationships, Homosexual Lovemaking. Available from the Department of Education and Social Concern, Unitarian Universalist Association, 25 Beacon Street, Boston, MA 02108.

Bender, M., Valeletutti, P.J. & Bender, R. (1980). *Teaching the Moderately and Severely Handicapped*, Baltimore: University Park Press. Includes curriculum objectives and activity ideas.

Biological Sciences Curriculum Study. P.O. Box 930, Boulder, CO 80302. Basic science curriuclum which includes objectives and lesson plans in sexuality education for the educable mentally disabled youngsters.

Birth Control Methods: A Simplified Presentation for the Mentally Retarded. Includes a filmstrip, script, 25 page flipchart, and monograph. Perennial Education, 477 Roger Williams, P.O. Box 855 Ravinia, Highland Park, IL 60035

Burt, J.J. & Meeks, L.B. (1975). *Education for Sexuality, Concepts and Programs for Teaching*. W.B. Saunders Company, Philadelphia, PA, $10.00. General guide for teachers at elementary-senior high, not particularly for special needs students.

Clarifying Your Values: Guidelines for Living. Slides (2 parts) with cassette. For senior highlevel students, it looks at values and risks and advantages involved in acting out values. Not especially for special needs students. Available from Planned Parenthood of Mid-Iowa (see Films for address).

Curriculum for Junior High School Students with Special Needs. Special School District No. 1, Minnesota Public Schools, 807 N.E. Broadway, Minneapolis, MN 55413, Attn.: Elaine Lundeer. Developed for mentally, physically, and behaviorally disabled and includes units on adolescence, attitudes and responsibilities, maturity, problems of sexuality. Teacher's guide, student workbook and activity sheets included.

Decision Making: Dealing With Crises. 2-part slide presentation with cassette for senior high students. Many crises are examined, but one is an unplanned pregnancy. Not especially for special needs students.

EASE (Essential Adult Sex Education). Comprehensive program which includes objectives, activities, and materials in 4 units: biological, sexual behavior, health, relationships. Includes picture cards, pre-post tests, filmstrips, manual. For the mentally retarded. May be rented from PP of Mid-Iowa or purchased/rented from James Stanfield Film Associates, P.O. Box 1983, Santa Monica, CA 90406.

Edwards & Wapnick (1979). *Being Me, A Social/Sexual Training Guide for Those That Work with the Developmentally Disabled*. Ednick Communications, Portland, OR 97208 (box 3612).

Fay, J. & Unibel, M.G. *Human Development Series (2nd Ed.), A Sexuality Program for Adolescents*. York, PA: Planned Parenthood of Central PA, 728 South Beaver Street, 17403. $12.95 + $1.00. No especially for special needs students.

Feeling Good About Yourself. Curriculum guide includes teaching strategies for socialization skills, cards to use in activities, films. Perennial Education, 477 Roger Williams, P.O. Box 855 Ravinia, Highland Park, IL 60035. For the developmentally disabled.

Fischer, H.L., Krajicek, M.J. & Borthick, W.A. (1974). *Sex Education for the Developmentally Disabled*. Baltimore: University Park Press. Covers mainly biological informatin, basic facts of sexuality.

Gordon, S. *Facts Abuot Sex for Today's Youth*. Ed-U-Press, 760 Ostrom Avenue, Syracuse, NY 13210. A clear sensible booklet with a more traditional approach. Not especially for special needs students.

Gordon, S. *Facts About VD for Todays Youth*. Up to date booklet with accurate information. Same address as above, $1.90. Not especially for special needs students.

Gordon, S. *The Sexual Adolescent, Communicating with Teenagers About Sex*. Duxbury Press, North Scituate, MA Written for parents and lay people. $3.50. Not especially written for special needs groups.

Growing Up. Available from Community Sex Education Center, Planned Parenthood Center of Syracuse, Inc., 1120 E. Geenesse Street, Syracuse, NY 13210. 25¢ A pamphlet for pre-teens and young teens (not especially for special needs students). Also available from this PP at 25¢: *Teen Questions About Sex and Answers*

Growing Up Young. Life Cycle Center, Kimberly-Clark Corporation, Box 551-CK, Neenah, WI 54956. For parents and teachers in teaching menstruatin to the mentally retarded. They also have available an introductory kit ot use in teaching menstruation.

Guide for Teaching Human Sexuality to the Mentally Handicapped. St. Paul, MN: Planned Parenthood of Minnesota, 1965 Ford Parkway, 55116, $3.50.

The Gynecological Exam. Your Health, Educational Divisin, 5841 South Maryland Avenue, Chicago, IL 60637. A filmstrip and cassette to explain a pelvic exam (a younger girl and older sister talk). Not especially for special needs groups.

Herpie: The New VD Around Town. Planned Parenthood of Mid-Iowa (see films for address). Filmstrips and cassette for junior-senior high students (not especially for special needs groups), a cartoon format.

Human Sexuality. Eye Gate House, 146-01 Archer Avenue, Jamaica, NY 11435. A filmstrip series for junior-senior high level students which includes these topics: our instincts and why we have them, the male of the species, the female of the species, arelove and sex the same thing?, attitudes about human sexuality, and marriage and families. Not especially designed for special groups.

Human Sexuality Learning Package. Educational Division, Hallmark Film and Recording, Inc., 51-53 New Plan Court, Ownings Mill, MD. Includes picture cares and slides with cassette.

Into Womanhood/Into Manhood. Available from Planned Parenthood of Mid-Iowa (see films for address). A captioned filmstrip/plain slides to help young people develop positive attitudes toward themselves during transitional years of puberty. Captioned for use with hearing impaired. Includes teacher's guide and script.

Invisible Minority. Department of Education and Social Cncerns, Unitarian Universalist Association, 25 Beacon Street, Boston, MA 02108. Filmstrip and records discussing gay men and women, their lives and society's attitudes.

Kempton, W. Sex Education for Persons with Disabilities that Hinder Learning: A Teacher's Guide. Planned Parenthood of Southeastern Pennsyvania, Philadelphia, PA.

Kempton, W. (1973). Guidelines for Planning a Training Course on Human Sexuality and the Retarded. PP of Southeastern Pennsylvania, 1402 Spruce Street, Philadelphia, PA 19102, $4.00.

Kempton, W. Techniques for Leading Grup Discussins on Human Sexuality. PP of SE Pennsylvania (see address above).

Kempton, W., Bass, M.S. & Gordon, S. (1973) revised. Love, Sex, and Birth Control for the Mentally Retarded: A Guide for Parents. PP of SE Pennsylvania (see address above).

Kempton, W. & Forman Guidleines for Training in Sexuality and the Mentally Handicapped. PP of SE Pennsylvania (see address above).

Kempton, W. & Hanson, (1978). Sexuality and Handicapped Students Curriuclum. Santa Monica, CA: James Stanfeld Film Associates (for address see films). Includes a slide/tape series.

Kent, C.A. & Bera, W. An Illusion Theater Guide for Teaching Mentally Retarded People About Sexual Abuse Prevention Education. Illusion Theater, 528 Hennepin Avenue Suoth #309, Minneapolis, MN 55403. This is really a manual on how to adapt their TOUCH CONTINUUM Curriculum for MR individuals.

Krater, Lipke, & Sledright Lincoln School Human Growth and Development. Lincoln School HGD, 860 Crahen Road N.E., Grand Rapids, MI 49506, $15.00 + $2.00. Curriculum guide for TMR (2 years - adulthood). Four units include health and self care, self concept, human growth and social development.

Life Skills: Would You Be a Good Parent? 3 part slide and cassette for senior high students (not especially made for special needs groups). Looks at the realities of parenting.

Life-Sized Instructional Charts. Planned Parenthood of Minnesota, 1965 Ford Parkway, St. Paul, MN 55116, $65.00. Kit with male and female figures and inserts to show such things as menstruatin, fetal development, male erections, etc.

Livingston & Knapp Human Sexuality: A Portfolio for the Mentally Retarded. PP of Seattle-King County, 2211 East Madison, Seattle, WA 98112, $20.00 + postage. Large illustrations and instructions for use with MR individuals in explaining human sexuality.

Menstruation. Planned Parenthood of Minnesota, 1965 Ford Parkway, St. Paul, MN 55116, 50¢. A lively, colorful pamphlet for younger readers (not necessarily disabled).

Mental Retardation and Sexuality. PP of Sioux City (see Films for address). A filmstrip and record set for parents or professionals (a little dated).

Methods of Contraception. Planned Parenthood Federation of America, 810 Seventh Avenue, New York, NY 10019. A 34 page flipchart concenring physiology, menstruation, conception, etc. Large size (18" x 24"), No. 203, is $25; small size (11" x 16"), No. 1501, is $15.

Are Children with Disabiilties Vulnerable to Sexual Abuse and Say No, Get Away and Tell Someone. Minnesota Program for Victims of Sexual Assault, 430 Metro Square Building, St. Paul, MN 55101, free.

Sexuality and the Mentally Handicapped. PP of Mid-Iowa (see Filsm for address) or James Stanfield Film Associates (see Films for address). This slide series is developed to teach the mentally disabled the basic aspects of sexuality and related behavior. Excellent resource materials, with curriculum guide.

Sex Education at Home—A Guide for Parents. Community Sex Education Center or PP of Syracuse, Inc., 1120 East Genesee Street, Syracuse, NY 13210, 50¢.

Sexuality and Exploitation ofHandicapped Students Curriculum (1981). Comprehensive Health Education Foundation, Seattle, WA. A slide/tape series with guide at 2 levels (ages 6-12, 12-adults). Level 2 is $495; level 1 is less expensive.

Social and Sexual Development: A Guide for Teachers of the Handicapped. Campus Stores, University of Iowa, 17 West College, Iowa City, IA 52242, $3.75. Developed by the Special Education Curriculum Development Center. Planned and orgnized on 3 levels: primary, intermediate, advanced.

Sexual Values: A Matter of Responsibility. 2-part filmstrip and cassette for junior-senior high students. Emphasizes responsibilty. Not especially designed for special groups.

Taking It To Task: A Curriculum in Human Sexuality for Developmentally Disabled People. Muskegan Area Planned Parenthood Association, 1642 Peck Street, Muskegan, MI 49442. (severe and profound).

Talk to Me! PP of Seattle-King Company, 2211 East Madison, Seattle, WA 98112, $2.50 a set. 4 sets of guides to help parents and young people interview each other about sex, love, and life. Set 1 is for women 12-16 and moms, Set 2 for ages 9-13 and moms, Set 3 for males 12-16 and dads, and Set 4 males 9-13 and dads.

Teaching Good Conduct and Personal Hygiene to Retarded Teenagers. Harris County Center for the Retarded, P.O. Box 13403, 3550 West Dalls, Houston, TX 77019. A 10-part filmstrip series picturing young people as demonstraters for personal hygiene and good behavior procedures, with teacher's guide. Topics such as menstruatin, shaving, proper clothing, and a personal tak to young women/men are included.

Teen Questions About Sex and Answers. PP Center of Syracuse, 1120 Genesee Street, Syracuse, NY 13210, 25¢. Not especially designed for special groups.

Ten Heavy Facts About Sex. Ed-U-Press, 760 Ostrom Avenue, Syracuse, NY 13210, 30¢. A comic book. Not especially designed for special groups.

Mayle, Peter (1975). *What's Happening to Me?* Lyle Stuart, Inc., 120 Enterprise Avenue, Secaucus, NJ 07094, $7.95. This book answers questions about puberty. Not written especially for special needs groups.

VD Clap Trap. Ed-U-Press, 760 Ostrom Avenue, Syracuse, NY 13210, 30¢. A comic book. Not especially designed for special groups.

Victoria House Dolls. PP of Santa Clara County,, San Jose, CA. Anatomically correct 12" cloth dolls, colorfully dressed with primaru and secondary sex characteristics. Female doll has baby inside her and comes with removable sanitary pad.

Vollchers, E. (1975). *Girl's Guide to Menstruation*. NY: Richards Rosen Press, Inc.

What It Means to be a Parent. PP Federation of America, 810 Seventh Avenue, New York, NY 10019. This 24-page pamphlet was developed for the mentally disabled.

Who Cares? Sex Disability Project, 1828 L Street N.W., Suite 704, Washington, D.C. 20036. A pamphlet on advocacy.

Westaway, A.M. & Apolloni, T. *Becoming Independent: A Living Skills System*. Edmark Associates, Bellevue, WA 98009. The section on Social Development includes objectives and activities for teaching sexuality.

APPENDIX J

Films on Sexuality

*=developed for Special Needs Groups
Footnotes indicate where to order films

*ABC OF SEX FOR TRAINABLES[1,3]: 16 mm (20 min.) Senior High-Adults. A little dated, but includes actual teaching sessions with children and adults. For parents and professionals.

*ALL WOMEN HAVE PERIODS[1,4]: 16 mm (11 min.) Elementary-Adults. Explains menstruation to retarded girls or women.

AM I NORMAL?[1]: 16 mm (20 min.) Junior High-Adults. Reviews puberty changes and answers questions boys ages 11-14 frequently ask.

A BABY IS BORN[1]: 16 mm (20 min.) Junior High-Adults. Discusses feelings of a young cuple as they have their first baby, with father in the delivery room. Some suggest omitting the birth control sequence at the end.

THE BEGINNING OF LIFE[1]: 16 mm (25 min.) Senior High-Adults. Shows ovulation, fertilization, tubal transport, and the first heartbeat.

BIRTH CONTROL: THE CHOICES[1]: 16 mm (25 min.) Senior High-Adults. Presents the various methods of birth control, their advantages and disadvantages. Uses animation to explain the female reproductive system and how methods work.

*BOARD AND CARE[6]: 16 mm. Senior High-Adults. Shows the very human problems facing two Down's Syndrome children as they grow up.

BREAST SELF-EXAM[1]: 16 mm (21 min.) Junior High-Adults. Shows breast exam for women; an excellent film.

THE CHOICE IS YOURS[1]: 16 mm (30 min.) Junior-Senior High. Uses a game show format to give all basic facts about birth control. Abstinence is included as a valid choice. Many think it is one of the best films on birth control for younger teens.

THE DATE[1]: 16 mm (20 min.) Junior-Senior High. Examines sex roles and how they operate in dating situations. Presents a situation in which peer pressure is put on male student to "score", and female student wants some reassurance of love as the price of consent. Two prints of the film exist—one is open-ended, and the other ends up with a date to the movies (preferred by parents).

DEAR DIARY[1]: 16 mm (24 min.) Junior-Senior High. Examines the physical and emotional effects of puberty for girls. Stresses seeking information from adults.

*DO IT[3]: 16 mm (20 min.) Adults. Introduces techniques for teaching mentally disabled essential social skills. Aimed at those interested in or working with disabled (including parents).

*DON'T TELL THE CRIPPLES ABOUT SEX[8]: 16 mm (part 1: 16 min., Part 2: 23 min.) Senior High-Adults. Discussion with 2 men and 2 women about their experiences with self-image and sexuality as they grow up.

FAMILY LIFE EDUCATION: A PROBLEM SOLVING CURRICULUM[1]: Senior High (15-19 year olds). Presents 5 brief "trigger films" that present typical situations to which students can react. Included with film are other curricular materials, including structured lesson plans. This program stresses problem-solving skills, self-awareness, and self-control.

A FAMILY TALKS ABOUT SEX[1]: 16 mm (28 min.) Adults. Shows typical situations with different aged children (preschool to young adults) in which parents model appropriate communication. Younger viewers sometimes see the parts with older teens as unrealistic.

*FEELING GOOD ABOUT YOURSELF[1,4]: 16 mm (22 min.) Senior High-Adults. Discusses an approach to sexuality educatin for developmentally disabled, providing an excellent view of principles for building self-esteem and living skills.

*FERTILITY REGULATION FOR PERSONS WITH LEARNING DISABILITIES[3]: 16 mm (18 min.) Senior High-Adults. Presents the various methods of fertility regulation (including sterilization) with their advantages and disadvantages.

GIRL STUFF[1]: 16 mm (21 min.) 5th-Junior High. Discusses hygiene and menstruation, with some animation and comments by junior high girls.

GROWING UP FEMALE[4]: 16 mm (15 min.) Junior High-Adults. Explains puberty and female reproductive system using animation, diagrams and dialogue ina girls' slumber party.

HAPPY FAMILY PLANNING[7]: 16 mm (8 min.) Adults. Explains benefits of family planning using animated cartoons and music.

*HOW AND WHAT OF SEX EDUCATIN FOR EDUCABLE PERSONS[1]: 16 mm (20 min.) Adults. Shows actual scenes of various situations and how to handle them and demonstrates a sex education session.

*LEARNING TO TALK ABOUT SEX WHEN YOU'D RATHER NOT[9]: 16 mm (30 min.) Adults. Shows actual sessions with students as well as discussions with parents and group home providers concerning goals and values of sexuality education.

*LIKE OTHER PEOPLE[1,2]: 16 mm (37 min.) Senior High-Adults. Explores the lives and feelings of 2 married people who live in an institution for cerebral palsied people. This is a moving film which deals with different issues of sexuality and the disabled. Viewers should be prepared to listen carefully because the speech of people in the film takes some effort to understand.

*LOVE CAREFULLY[1]: 16 mm (37 min.) Junior-Senior High. Can be used with viewers of both sexes who have learning or language difficulties because animation is explicit enough to teach clearly. Should be previewed.

LOVING PARENTS[1]: 16 mm (25 min.) Presents typical situations between children and parents (vignettes), with a group of parents responding to each sequence. Many believe it is one of the best available.

MASTURBATORY STORY [1]: 16 mm (15 min.) Junior High-Adults. Deals with male masturbation verbally (not visually). Is explicit so you should preview.

*MIMI[1]: 16 mm (13 min.) Senior High-Adults. Tells the story of a physically handicapped person who describes her reactions to the assumption that because she cannot walk she does not have normal intelligence or sexuality.

MENSTRUATION[1]: 16 mm (18 min.) Junior High-Adults. Shows a 15-year old getting her first period. Uses paradoy, satire, and animation.

MIRACLE OF LIFE[1]: 16 mm (14 min.) Junior High-Adults. Shows the first stages of reproduction with live photography.

NICHOLAS AND THE BABY[1]: 16 mm (23 mon.) Younger Children and Their Parents. Shows animated sequence of growth and delivery of a baby and follows a family as they prepare for their second child.

NO MORE SECRETS[1]: 16 mm (23 min.) Elementary, Junior High and Teachers. Shows 4 children playing in their secret hide-out sharing unpleasant feelings about being touched by adults. This sensitive film also shows how children can let caring adults know they are experiencing sexual abuse.

PARENT TO CHILD ABOUT SEX[4]: 16 mm (31 min.) Portrays how attitudes are formed through parental influences throughout childhood.

RAPE: A PREPVENTATIVE INQUIRY[1]: 16 mm (20 min.) Senior High-Adults. Shows situations in which women ar emost vulnerable to rape, with interviews with rapists.

RAPE PREVENTION: NO PAT ANSWER[1]: 16 mm (17 min.) Senior High-Adults. Discusses possibilities for rape and how to reduce vulnerabilities.

RUNNINY MY WAY[1]: 16 mm (32 min.) Junior-Senior High. Traces a girl's dealing with question of sexual relations with her boyfriend.

SALLY AT 13[1]: 16mm (18 min.) Late Elementary-Junior High. Examines the pressures on a girl who wants to be mature but is not yet there.

SAYING NO: A FEW WORDS TO YOUNG WOMEN ABOUT SEX[1]: 16mm (20 min.) Junior-Senior High. Discusses the factors to consider in sexual decision making and getting to know what are right and wrong choices for themselves.

SEASONS OF SEXUALITY[1,4]: 16mm (14 min.) Adults. Explores sexuality throughout the life cycle and such issues as touching, loving, privacy, friendship, body image, fantasies, decisions, and values.

SELF EXAMINATION OF THE TESTES[1]: 16mm (20 min.) Junior High-Adults. Discusses regular self-examinatin of the testes. Testicle cancer is a young man's disease.

*SEX AND THE HANDICAPPED[1]: 16 mm (20 min.) Senior High-Adults. Shows the special concerns of people with a wide range of physical handicaps.

SEX AND THE PROFESSIONAL[1]: 16mm (30 min.) Adults. Explores the need for professionals to understand their own sexual feelings as well as their clients. Is a warm, funny film.

SEX FEARS/SEX GAMES MIS-EDUCATIN/SEX MORALS[1]: 16mm (10 min. each) Junior High-Adults. Shows older teens discussing these subjects. Some may find parts a little outdated.

THE SEXUALLY ABUSED CHILD: IDENTIFICATION/INTERVIEW[1]: 16mm (10 min.) Shows ways to get information from child without adding to the trauma.

SHELLEY AND PETE...& CAROL[1]: 16mm (22 min.) Junior-Senior High. Deals with two high schoolers, an unplanned pregnancy, a marriage, and a baby, with predictable results.

SWEET 16 AND PREGNANT[1]: 16mm (28 min.) Senior High-Adults. Shows five teenage girls taking about their decisions regarding their unplanned pregnancies, including abortion and adoption. Is an excellent film that is both realistic and sensitive to feelings.

TAKING CHANCES[1]: 16mm (22 min.) Junior-Senior High. Looks at why teens don't use birth control, even though they may know about it. Is popular with teens.

TEENAGE FATHER[1]: 16mm (15 min.) Junior-Senior High-Adults. Looks at the feeling of the teenage father in delaing with an unplanned pregnancy; an Oscar winner.

TEENAGE MOTHER: BROKEN DREAM[1]: 16mm (15 min.) Junior High-Adults. Shows an actual 15-year-old.

TEN ONE YEAR[1]: 16mm (19 min.) Late Elementary-Junior High. Uses animation to show changes of puberty and has live students talking about their feelings and experiences.

TEENAGE PREGNANCY EXPERIENCE[1]: 16mm (26 min.) Senior High-Adults. Follows young mothers as they go from pregnancy to early parenting.

VAGINITIS[1]: 16mm (12 min.) Senior High-Adults. Teaches simple health habits and how to detect a problem.

VD AND WOMEN[1]: 16mm (17 min.) Senior High-Adults. Looks at facts, symptoms, examination, and treatment (not Herpes).

VD QUIZ[1]: 16mm (25 min.) Senior High-Adults. Shows common infections and myths about them (not Herpes or AIDS).

VD: WHY DO WE STILL HAVE IT?[1]: 16mm (25 min.) Junior High. Examines the feelings and values that keep VD an epidemic, in addition to transmissions, symptoms, effects. Is the film of choice for younger viewers (not Herpes/AIDS).

WHAT CAN A GUY DO?[1]: 16mm (15 min.) Junior-Senior High. Looks at the male responsibility for birth control and the social pressures that keep men from being a part of contraceptive decisions. Stresses the use of the condom. Is not a balanced look at male responsibility since it does not stress abstinence, but is a good, realistic film for its purpose.

WHEN LIFE BEGINS[1]: 16mm (14 min.) Junior High-Adults. Shows fetal development from conception to birth with live interuterine photography. If sound track is too technical, turn it off and use your own narrative.

WOULD YOU KISS A NAKED MAN?[1]: 16mm (20 min.) Teens-Adults. Deals with teens' attitudes toward nudity and virginity, with an emphasis on sex roles, values, and games people play. Contains a short nude scene.

YOUNG, SINGLE, AND PREGNANT[1]: 16mm (18 min.) Junior High-Adults. Shows four people sharing reasons for selecting marriage, single parenthood, adoption, and abortion. Clothing is outdated, but content isn't.

YOUR PELVIC AND BREAST EXAM[1]: 16mm (12 min.) Junior High-Adults. Shows an actual exam, explained by a nurse practitioner. Nudity is handled with taskte and comfort; an excellent film for young women.

ON BEING SEXUAL[5]: 16 mm (22 min.) Adults. Includes parents and their MR childrn in a discussion of sexuality. TAlks about sex education and the mentally retarded with experts such as Sol Gordon and Winifred Kempton.

[1] Planned Parenthood of Mid-Iowa, Education Department, Library/Media Division, P.O. Box 4557, Des Moines, IA 50306 (515/280-7000). Generally, films are $15 (in state) and $20 (out of state) to rent and are sent out UPS on Mondays.

[2] Planned Parenthood of Sioux City, 2831 Douglas, Sioux City, IA 51104 (712/277-3332).

[3] Education Division of Hallmark Films and Recordings, Owings Mills, MD 21117.

[4] Perennial Education, 477 Roger Williams, P.O. Box 855 Ravinia, Highland Park, IL 60035.

[5] Stanfield Film Association (SFA), P.O. Box 1983, Santa Monica, CA 90403.

[6] Pyramid, Box 1048, Santa Monica, CA 90406.

[7] Planned Parenthood Federation, 810 Seventh Avenue, New York, NY 10019.

[8] Multi-Media Resource Center, Inc., 540 Powell Street, San Francisco, CA 94108 (415/421-5035).

[9] Special Purposes Films, 416 Rio Del Mar Boulevard, Aptos, CA 95003.

Self-Injurious and Stereotypic Behavior in Children and Adolescents

Susan Epps

Abstract: Self-injury and stereotypy are forms of aberrant behavior that occur more often in developmentally disabled than in normal populations. Since these behaviors are potentially dangerous to an individual and interfere with adaptive day-to-day functioning, a treatment plan is usually necessary. The etiology of self-injurious and sterotypic behaviors is poorly understood. Medical research holds some promise in treating the biological mechanisms that may underlie these behaviors, but presently medical intervention is of limited utility in treating the behaviors themselves. Although behavioral techniques are the most effective procedure for reducing self-injury and stereotypy, the likelihood of their success depends on a thorough pretreatment environmental analysis of variables that maintain the behaviors. In this chapter, both biological and behavioral approaches to the treatment of self-injury and stereotypy are examined. A methodology for conducting a pretreatment analysis of the specific environment conditions and consequences that are differentially associated with these behaviors is presented. In addition, a variety of behavioral procedures are outlined, and considerations in using them appropriately are delineated.

Chapter Outline

Definition, Background and History 290

Assessment and Diagnostic Procedures 214

Intervention 219

Monitoring Methods 231

Conclusions and Considerations 233

References

Definition, Background and History

Self-injury and stereotypy are bizarre and frequently chronic forms of aberrant behavior. Self-injury, which has been defined by Tate and Baroff (1966) as "behavior which produces physical injury to the individual's own body" (p. 281), includes a number of different topographies such as head-banging, face and body slapping, eye-poking, and self-biting. Self-injurious behavior (s-i-b) may take on extreme forms that pose serious risks to those persons who engage in the behavior. Lovaas (1982) describes cases in which children hit their heads to the point of bleeding and eventual scarring, hit their fists on their eyes so that retinas are detached, or even broke their noses by bending their heads downward while striking their faces with their kneecaps. Clearly, such behaviors have deleterious effects on a person and result in physical harm. There are also some behaviors such as scratching that are considered to be self-injury even though they may not result in immediate harm. Rather their cumulative effects over time may generate concern (Whitman, Scibak, & Reid, 1983). Stereotypy, which refers to repetitious and high-rate motor responses that have no apparent adaptive function (Whitman et al., 1983), may also take a variety of forms such as side-to-side head weaving, body rocking, hand flapping, hand gazing, and paper flipping (Epps, 1983). Although these behaviors have been referred to as self-stimulation, stereotypy is the more appropriate term because it does not have etiological connotations of the stimulation hypothesis which represents only one of several possible explanations of the occurrence of the behaviors.

Kazdin (1982) and Ullmann and Krasner (1975) outline several criteria that need to be considered before planning an intervention on a particular target behavior. First, is the behavior dangerous or potentially dangerous to the person or to others? Second, does the behavior interfere with the person's day-to-day functioning? And third, is the behavior a clear departure from normal behavior? In most situations in which sib or stereotypy occurs, the answers to these questions will be an emphatic yes.

Self-injurious and stereotypic behaviors occurs much more often in developmentally disabled than in normal populations. There is some evidence that the frequency and severity of self-injury and stereotypy are greater with the severely and profoundly mentally retarded than in higher functioning individuals (Berkson & Davenport, 1962; Ross, 1972). Guess (1966) also found that nonambulatory and/or blind persons have rates of stereotypic behavior higher than individuals who are sighted or ambulatory. Self-injury and stereotypy do not necessarily represent a discrete cluster of behaviors. Instead, they may be viewed as occurring along the same continuum. If someone self-slaps, it may be a form of stereotypy. At some point, this behavior may injure the person and thus is referred to as self-injury. The sib may, however, still be a form of stereotypy for that person. Because the two behaviors are topographically and functionally similar, they are grouped together in this chapter.

Of all the problem behaviors among the developmentally disabled, sib is probably the most tragic and debilitating. Although information regarding the incidence and deleterious effects of sib have repeatedly been presented in the literature, its etiology is only poorly understood. In general, very little is known about the biological mechanisms that may underlie the development and maintenance of the behavior (Favell, 1982). Rather than relying on an exclusively behavioral or biological explanation of self-injury or stereotypy, both should be considered together. Considering how biological factors relate to an operant approach to treatment is important. Information about a possible biological basis for self-injury or stereotypy could be applied to behavioral procedures to generate more effective behavior change and generalization of this behavior change across settings and time (Cataldo & Harris, 1982).

Biological Basis for Self-Injury

Conditions Associated with Self-Injury

One method for beginning to explore a biological basis for self-injurious behavior is to examine various syndromes. Sometimes the physical characteristics of a syndrome can provide clues about organic basis. Cataldo and Harris (1982) discuss several such syndromes that are characterized by sib.

Lesch-Nyhan Syndrome. This medically diagnosed syndrome is a sex-linked genetic disorder that affects males. It is characterized by an enzyme deficiency which results in the failure to metabolize the chemical purine; uric acid is the abnormal metabolic end product. Problems associated with Lesch-Nyhan include mental retardation, athetosis (slow, writhing movements of the limbs), and an excess of uric acid in the blood. The predominant characteristic is severe self-injurious behavior in the form of mutilation of the fingers, tongue, and lips due to self-biting. Although the topography of the sib consists primarily of self-biting, other forms have also been reported such as eye gouging and head banging (Dizman & Cheatham, 1970).

There are several hypotheses about the reason for sib in persons with Lesch-Nyhan syndrome. Cataldo and Harris (1982) suggest that the more promising ones involve centrally acting neurotransmitters. One hypothesis implicates serotonin which is a naturally occurring (endogenous) substance required for certain aspects of normal brain functioning. It has been demonstrated in the animal literature that if the level of serotonin is too low, aggressive behavior occurs. If one generalizes from this research, individuals with Lesch-Nyhan syndrome may engage in sib because it is the easiest form of aggression they can exhibit. There is experimental evidence for this serotonergic explanation for sib in Lesch-Nyhan syndrome. Use of medical regimens such a 5-hydroxytryptophan therapy (an immediate biochemical precursor to the production of serotonin) has effected dramatic decreases in sib although these have often dissipated over time (e.g., Nyhan, Johnson, Kaufman & Jones, 1980). Research is still needed to determine which areas of the brain are involved and the manner in which serotonin is related to self-biting.

A second hypothesis involving neurotransmitters concerns abnormalities in the dopaminergic system. Autopsy data on the brains of three Lesch-Nyhan patients indicated decreased levels both in dopamine and enzymes required for dopamine synthesis (Lloyd, et al., 1981). Cataldo and Harris (1982) maintain that the data on serotonin and dopamine abnormalities represent the most sophisticated and parsimonious understanding of the biochemistry of Lesch-Nyhan syndrome. Since this syndrome is associated with severe sib, the serotonergic and dopaminergic hypotheses shed light on the biological basis of some forms of self-injury.

It is extremely important to keep in mind that even in cases in which there may be an organic etiology to sib, operant explanations should not be ruled out. Several researchers have reported data suggesting a bio-behavioral interaction (Anderson, Dancis & Alpert, 1978; Anderson, Herrmann, Alpert & Dancis, 1975). They have found that the rate of self-biting varies depending on the adult present and that the contingent withdrawal of attention, but not contingent shock (for Lesch-Nyhan persons), has reduced self-biting.

Cornelia de Lange Syndrome. This rare disorder has been associated with genetic abnormalities, but no specific genetic or biological basis has yet been proven. The topography of the self-injury in persons with Cornelia de Lange syndrome typically includes face hitting, face picking, and lip biting; the sib is not as intense as that found in Lesch-Nyhan syndrome (Shear, Nyhan, Kirman & Stern, 1971).

Insensitivity to pain. Congenital and genetic anomalies that result in insensitivity to pain have been associated with self-injury. Cataldo and Harris (1982) discuss one such example, Ruley-Day syndrome which is an autosomal recessive disorder that affects mostly descendants of Ashkenazi Jews. Persons with this syndrome have numerous neurological and physiological abnormalities; those most closely associated with sib include abnormal sensory nerves and organs, never fibers, and autonomic nerve plexuses. If these patients are injected with a pain-producing drug, it becomes apparent that their pain perception is reduced or absent (Bergsma, 1979; Holmes, Moser, Halldorsson, Cornelia, Pant & Matzilevich, 1972).

Based upon clinical research involving various syndromes, the major hypothesis is that sib results from decreases in neurotransmitters that are necessary for basic brain functioning. It is important to keep in mind, however, that these syndromes account for only a very small percentage of sib in the mentally retarded. The specific relationship between brain biochemistry and sib has not yet been determined. Even in situations in which the self-injury does have an organic component, operant principles, to explain or to treat the sib, should not be overlooked.

Developmental Factors

There are a number of variables in a person's developmental history that may contribute to stereotypy or to self-injury. Both research with animals and anecdotal reports of children reared in physical and social isolation during critical periods of development indicate that stereotypy and/or sib often result. It is unclear whether these aberrant behaviors can be explained on the basis of learning deficiencies alone or if biological processes must also be considered.

Vestibular stimulation may also be an important variable to consider. Warren and Burns (1970) found crib confinement, which could reduce vestibular stimulation, to be positively correlated with the frequency of stereotypic behavior in severely and profoundly retarded children. Cataldo and Harris (1982) note that the vestibular system may be a key to understanding stereotypy and perhaps some cases of sib, and that stimulation of the vestibular system may enhance development and reduce these stereotypies. This hypothesis suggests that vestibular stimulation, which might occur by increasing arousal through motor activity, facilitates neuronal maturation. Increasing stimulation certainly is not the only relevant developmental factor. Another consideration may be whether a person has behavioral and biological repertoires that also can decrease arousal and some forms of stimulation (Mason, 1968).

There is some research suggesting that early experiences with pain, such as otitis media or middle-ear infection, may predispose children to engage in head banging (DeLissovoy, 1963). Self-injury has also been shown to occur in mice due to experimentally induced otitis media (Harkness & Wagner, 1975). There are a number of possible explanations as to why pain related experience may lead to head banging. The one that Cataldo and Harris (1982) suggest is most plausible posits that head banging serves to replace one pain with another. This hypothesis is viable since biological research has shown that biochemical action can induce behavioral stereotypies, both self-stim and sib, and that other biochemical action can alter pain receptors and thus mitigate pain perception.

In summary, there are two developmental factors that may in part explain self-injurious and self-stimulatory behaviors. One factor is that these behaviors may represent a retarded person's attempt to increase neurological stimulation. The second factor is that they may occur in order to decrease pain or other aversive stimulation (Cataldo & Harris, 1982).

Surgical and Biochemical Research

It appears that the key mechanism for the observed relationship between arousal and stereotypies is the pituitary-adrenal system (Mason, 1968). Increased arousal of the pituitary-adrenal system and the central nervous system may take place in the natural environment due to conditions that can be structured in stimulus-response terms. For example, the response of the pituitary-adrenal system has been shown to increase under at least three stimulus conditions (Cataldo & Harris, 1982): novelty, uncertainty, and conflict. First, novelty refers to stimuli never experienced before or to familiar stimulus elements that are combined in different ways. Second, uncertainty refers to stimuli that are less than 100% predictable. And third, conflict refers to stimuli for two competing, incompatible responses. This aroused state is likely to continue until the stimulus condition is altered. Thus, until familiar stimuli are reintroduced in a more predictable situation or conflict is reduced, the individual is likely to continue the stereotypy. Increased arousal can be inhibited either by behavior that either removes the external excitatory stimulus (by escape or avoidance) or mitigates the internal state (by stereotypy). Retarded persons' learning and adaptation to environmental events is slow and their everyday environment often does not adequately reduce novelty, uncertainty, and conflict. Since they usually cannot escape or avoid these stimulus events, stereotypies may be their only effective way to reduce high levels of biological activity (Cataldo & Harris, 1982).

Congenital, developmental, and environmental factors may cause increased pituitary-adrenal activity which results in stereotypic behaviors and increased endogenous opiate activity and leads to heightened pain threshold. This threshold, in turn, would permit stereotypies that ordinarily are painful. An interesting notion to consider, since endogenous opiates are produced in response to pain stimuli, is the possibility that a person could self-administer opioid peptides by engaging in self-injurious behavior at a sufficient intensity and rate. Since naloxone is an opiate antagonist that blocks opiate receptors in the brain, it may have potential as a treatment for sib. If individuals engage in self-injury as a means to self-administer endogenous opiates, then the administration of naloxone might be an effective treatment (Cataldo & Harris, 1982). In essence, it would lead to extinction of the aberrant response because the person would no longer experience the powerful reinforcing effects of the opioid peptides. There are some preliminary data from a study by Sandman, Data, Barron-Quinn, Hoehler, Williams, and Swanson (cited in Cataldo & Harris, 1982) indicating that naloxone is effective in reducing the self-injury of severely retarded persons. Use of naloxone in the treatment of sib is still in the experimental stage and considerably more research is necessary before using it on a wide scale.

In summary, a number of general statements can be made about the biological etiology of self-injury (Cataldo & Harris, 1982).

1. Although sib is characteristic of some genetic and congenital anomalies, there is no clear picture on the biological cause.

2. Certain environmental and biological events, such as isolation and reduced vestibular stimulation, during critical stages of development may be related to the onset of sib.

3. Stereotypy and self-injury can result from excessive stimulation brought about by either biochemical or environmental (such as novel, uncertain, or conflicting) stimuli. Engaging in these aberrant behaviors may help to mitigate the biological effects of arousal-inducing stimuli, particularly since developmentally disabled individuals are limited in their capacity to avoid or to escape such situations.

4. Neurological damage is associated with some cases of mental retardation. It may alter normal sensory input and provide a constant stimulus for arousal, stereotypy, and perhaps even self-injury.

5. Naturally occurring (endogenous) opiates may lessen the aversive properties of stereotypy, by increasing the pain threshold and allowing them to escalate into sib.

6. Individuals may engage in sib in order to experience the powerful biochemical reinforcement of endogenous opiates.

Behavioral Basis for Self-Injury

Although some forms of stereotypic and self-injurious behavior may have a biological basis, these behaviors also may be viewed as learned responses that are shaped and maintained by contingencies in the environment. Within this framework, self-injury is considered to be an operant behavior which is affected by its consequences and controlled by antecendent stimuli that signal differential consequences (Favell et al., 1982). More information about environmental variables that may be functionally related to sib and stereotypy are discussed later in this chapter.

The operant approach is more concerned with the treatment of sib and stereotypy without explaining their initial occurrence. Etiology and maintenance are considered separately since factors responsible for the onset of sib may be quite different from those that subsequently maintain it (Favell et al., 1982a). Although medical interventions hold some promise, they may be neither necessary nor sufficient (Duker, 1975; Shear et al., 1971).

Diagnostic Procedures

The greatest success in treating sib has been found with methods based on principles of operant conditioning; however, there have been mixed findings (see Iwata, Dorsey, Slifer, Bauman, & Richman, 1982, and Schroeder, Schroeder, Rojahn, & Mulick, 1981, for reviews). The only interventions that consistently have been effective in treating sib are those in which aversive stimulation, such as water mist, ice application, lemon-juice therapy, and aromatic ammonia, have been used (Corte, Wolf, & Locke, 1971; Dorsey, Iwata, Ong, & McSween, 1980; Drabman, Ross, Lynd, & Cordua, 1978; Sajwaj, Libet, & Agras, 1974; Tanner & Zeiler, 1975).

When designing and conducting treatment procedures for any problem behavior and particularly for stereotypy and sib, it is necessary to follow the least restrictive treatment model and to limit more aversive and intrusive procedures to situations in which positive approaches have failed (Epps, 1983). Some of the failures and inconsistencies in the treatment literature may reflect a limited understanding of the variables that either produce or maintain sib (Carr, 1977; Johnson & Baumeister, 1978). For example, both stereotypy and sib may be positively reinforced through attention or negatively reinforced through termination of demands. These behaviors also may produce some type of intrinsic reinforcement due to sensory stimulation or pain reduction.

Just as stereotypic and self-injurious behaviors may have multiple organic explanations, they may also be maintained by a variety of environmental contingencies. Iwata et al. (1982) thus view self-injury as a multiply controlled operant. This conceptualization is extremely significant because it has major implications for intervention; no single type of treatment can be expected to produce consistent positive results. To keep from having to attempt a seemingly endless series of interventions, Iwata et al. recommend that the functional properties of the aberrant behavior be identified on a pretreatment basis by observing the individual's behavior in well defined analogue environments.

Experimental Conditions

In order to analyze the specific environmental conditions and consequences that are differentially associated with sib or stereotypy, it is necessary to expose individuals to different analogue conditions. A multielement design (Barlow & Hayes, 1979) is particularly useful in evaluating the occurrence of the aberrant behavior under different environmental conditions. In the Iwata et al., (1982) method, which has also been used by this author, eight 15-minute sessions are conducted per day (two sessions per condition).

In order to assess the differential effects of the environment on the behavior, the individual must be allowed to engage in the behavior with no form of mechanical, physical, or chemical restraint. Therefore, before placing subjects in any of these conditions, it is essential to use a number of safeguards, such as those outlined by Iwata et al (1982), to reduce the risk of physical damage that may occur during the observations. The necessity for each may vary depending on the assessment and intervention setting and on the nature of the individual's sib.

1. Each subject should receive a complete medical examination in order to assess current physical status and to rule out organic factors that could be exacerbated by sib. Individuals who are at extreme risk for severe and permanent physical damage due to self-injury should not be allowed to engage in unrestrained sib as required in this type of pretreatment analysis. Other diagnostic examinations, such as neurological, audiological, and visual, may also be appropriate.

2. Each subject's physician should recommend a criterion, such as a certain degree of injury and/or rate of responding, that session observers can use for determining when a particular session needs to be terminated due to physical risk to the subject. Physicians and/or nurses should observe some of the sessions so that they can modify this termination criterion if necessary.

3. If at any time this criterion is met, brief physical or mechanical restraint should be used to interrupt the sib, the subject should be removed from the observation room, and a physician or nurse should examine the person and either approve that the session be continued or that it be postponed.

4. After each set of four observation sessions, subjects generally should be examined by a nurse in order to note any changes in the person's physical status as a result of self-injury.

5. Each individual case should be reviewed frequently (at least weekly) by professionals directly involved and by the interdisciplinary team.

Attention (social disapproval). In this condition, the examiner places the individual in contact with a variety of toys and instructs him/her to play with them. The adult then sits on the other side of the room and pretends to be preoccupied with reading a magazine. The examiner essentially ignores the subject except for when self-injury occurs. Attention is given contingent on each episode of sib, which could either be a single response or a rapid series of responses, and consists of such statements of concern and disapproval as, "Don't do that, you're going to hurt yourself." This attention is paired with brief non-punitive physical contact such as a hand on a shoulder.

The attention condition is intended to approximate one type of reinforcement contingency in the natural environment that might maintain a person's sib. The statements of concern and social disapproval paired with brief physical contact, presented contingent on the occurrences of sib, may inadvertently lead to positive reinforcement. This condition is a particularly important one to include in the pretreatment analysis when the individual comes from a setting that has a low staff-to-client ration. Under these circumstances, sib may be one of the few ways in which the client can gain attention from others.

High demand. In this condition, subjects are presented with various educational activities that are somewhat difficult for them to do and that they are not likely to complete spontaneously. The nature of these activities is determined individually for each person. Although these activities need to be functional if they are to be included in an instructional program (cf. Brown, Branston, Hamre-Nietupski, Pumplan, Certo, and Gruenewald, 1979, Epps & Robinson, 1984), even less functional tasks such as stacking wooden blocks could be used if they produce a high-demand condition for the subject.

Learning trials are presented using a three-step procedure involving verbal, imitative, and physical prompts. First, the examiner verbally instructs the subject to complete the task. If the task is not completed, the examiner repeats the instruction and models the correct response. If still no correct response occurs, the examiner repeats the instruction and manually guides the subject to complete the task using the least amount of physical contact necessary (graduated guidance). For individuals with auditory or visual impairments, the first two steps are modified or deleted. Social praise is presented when the subject completes the task, regardless of the level of prompt that was necessary.

Contingent upon the occurrence of sib at any time during the session, the examiner immediately terminates the trial (no longer requires the subject to complete the task) and turns away from the subject for 30 seconds with a 30-second change-over delay for continued sib. This condition, in which a subject can terminate the high-demand situation by engaging in sib, is intended to assess whether or not the behavior is being negatively reinforced as a result of escaping or avoiding demand situations.

Alone. In this condition, the subject is alone in the observation room with no access to any toys or material that could serve as external sources of stimulation. Although the light is left on, shades are drawn. This condition is intended to approximate an impoverished or austere situation in terms of the level of social and physical stimulation that it provides. Some stereotypic behavior may be motivated through self-produced sensory reinforcement (Rincover, 1978; Rincover, Cook, Peoples, & Packard, 1979). Sib may be similarly maintained (Carr, 1977; Corsey, Iwata, Reid, & Davis, 1982; Favell, McGimsey, & Schell, 1982). If an individual's sib functions as a method of providing sensory reinforcement, then higher levels are expected to occur in this condition and in situations in which there are minimal amounts of stimulation provided by the environment.

Unstructured play. In this condition, the examiner and subject are both present in the observation room, and a variety of toys are available for the subject. The examiner's role is that of facilitator, allowing the subject to engage in isolate, parallel, or cooperative play or to move about the room. The examiner stays fairly close to the subject and occasionally may present a toy, but places no demands. Differential reinforcement of appropriate behavior, in the form of social praise and brief physical contact, is delivered at least once every 30 seconds. Any episode of sib is ignored unless the termination criterion is met.

This play condition is intended to serve as a control for the presence of the adult, the availability of potentially stimulating materials, the absence of demands, the delivery of social approval for appropriate behavior, and the lack of attention for sib. It, therefore, provides useful baserate information against which data from the other conditions can be compared. It also is intended to represent an enriched environment in which only low levels of sib are expected to occur.

Iwata et al. (1982) suggest that observation sessions for each condition continue until: (a) the level of sib stabilizes, (b) the level of sib remains unstable in all conditions for 5 days, or (c) 12 days of observation are completed.

The purpose of using a multielement design and running an individual through different analogue conditions is to conduct a thorough pretreatment analysis of the aberrant behavior. Since self-injury and stereotypy are multiply controlled operants, it is necessary to identify those antecedents and consequences that control, or at least partly control their occurrence.

Consider an example in which the functional properties of self-injury were delineated. Pretreatment assessment data on David, a 4-year, 11-month-old developmentally disabled boy. His sib consisted of slaps to his face with the palm of his hand. Running him through the four analogue conditions previously descibed indicted that his sib had probably been negatively reinforced by the termination of demands. Interviews with David's teachers and parents aftr this assessment phase corroborated this finding. For example, when he was requested to eat a vegetable, he slapped himself. In turn, the adult terminated the request; David did not have to eat the vegetable. His sib functioned as an effective means for him to extricte himself.

The analogue conditions that can be used in this pretreatment analysis are not invariable. The four conditions outlined by Iwata et al. (1982) are particularly useful for assessing the functional properties of self-injurious behavior, but they are by no means the only analogue conditions that could be assessed. The Iwata sib-research team has added variations to the standard four conditions for several assessment cases (B. A. Iwata & G. M. Pace, personal communication, August 13, 1984). For example, the Alone condition can be divided into two separate conditions: (a) alone (no adult present) with toys and (b) alone without toys. This breakdown thus allows the examiner to determine more precisely if it is the absence of a person or the absence of physical objects that contributes to the occurrence of sib. Similarly, a cuddle condition was used with one subject for whom there was no clear differentiation in rates of sib under the standard four conditions. The pretreatment assessment data for this person indicated that considerably lower rates of sib occurred when she was held in someone's lap and rocked back and forth. Implications for planning a treatment program will be discussed in the next section.

A second example of different analogue conditions that could be used involves Anne, an 11-year, 9-month-old moderately mentally retarded girl whose self-injury consisted of hand and arm biting. She was assessed under the Attention, High demand, Alone, and Play conditions, but no occurrences of sib occurred. In order to determine which environmental events were associated with her self-biting, Anne's 21-year-old sister was interviewed a second time (Anne's mother was in the hospital). It appeared that their 3 1/2 year-old niece was present when Anne bit herself. Therefore, Anne was placed in four additional analogue conditions: (a) niece and Anne, (b) niece, sister, and Anne, (c) Anne and sister: ignore, and (d) Anne and sister: attention. The highest rates of sib occurred when her sister ignored Anne and gave her attention to the niece. These data suggested that the self-biting served to divert attention away from the niece and toward Anne. This attention, in turn, positively reinforced Anne's self-biting.

The procedure for conducting a pretreatment analysis by running individuals through different analogue conditions can and should be done for other behaviors, since they may also be multiply controlled operants. Adams, Tallon, and Stangl (1980) used a similar approach to assess the effects of three environment conditions, quiet, radio, and television, and three interaction/manipulable conditions, no toys, toys, and toys plus staff interaction, on the rate of stereotypic behavior. For a further analysis, the radio condition could have been subdivided into two or three different types or volumes of music. The same procedure has also been used to study the relationship of mouthing behavior (both of objects and body parts) to three different environmental conditions, group play, individual impoverished play, and individual enriched play (Madden, Russo, & Cataldo, 1980).

In summary, a thorough pretreatment analysis should be conducted to assess the functional relationships between target behaviors and certain environmental events. Delineating the specific environment conditions and consequences that are differentially associated with behavior is especially crucial for multiply controlled operants. This analysis should be conducted using a number of different conditions regardless of the etiology of the aberrant behavior.

Intervention

After the functional properties of self-injury and stereotypy have been identified by systematically observing an individual's behavior in well defined analogue conditions, this information about the environmental context and maintaining conditions is used to plan an intervention. Favell et al. (1982b) list several potential advantages to such an approach which allows change agents to: (a) circumvent inefficient and perhaps deleterious treatments, (b) suppress the aberrant behavior more efficiently than the current mixed results obtained from differential reinforcement procedures, (c) increase the chances that generalization and maintenance of treatment gains will occur, and (d) avoid the use of aversive procedures that may be unnecessary.

Approaches to the Treatment of Self-Injury and Stereotypy

Essentially there are two different approaches to treating sib and stereotypy, a medical approach and a behavioral approach. Although treatments based on psychodynamic theories have been proposed, they have not resulted in scientifically verified reductions in these behaviors, particularly with developmentally disabled individuals (Bachman, 1972; Favell et a., 1982a). Therefore, psychodynamic approaches are not reviewed in this chapter.

Medical Approaches

As indicated in the section on the biological basis for self-injury, there are a number of medically diagnosed syndromes, such as Lesch-Nyhan and Cornella de Lange syndromes, as well as a variety of medical disorders, such as otitis media, associated with sib. From a biological viewpoint (as well as from a behavioral viewpoint) these aberrant behaviors are also most likely to be multiply determined, occurring for different reasons across different people. Cataldo and Harris (1982) present a cogent case for combining biological and environmental influences both to explain and to treat sib and stereotypy and provide several examples. For one person who is insensitive to pain, sib may be a very effective operant for gaining attention without any discomfort. For someone else, head banging may occur to increase endogenous opiate production, thereby decreasing arousal caused by a confusing ward environment, and to obtain the powerful narcotic euphoria associated with opiates. They maintain that both operant and biological considerations are necessary to explain the cause of these behaviors with the possible exception of vestibular stimulation.

A number of medical regimens appear to have some promise in treating sib including 5-hydroxytryptophan and naloxone. In many (and perhaps even most) cases, however, medical treatment may not be sufficient; presently, drugs do not play a major role in the prevention or control of sib (Picker, Poling, & Parker, 1979). It is also important to keep in mind that few controlled pharmacological studies have been successful in demonstrating reductions in self-injury (Sprague & Baxley, 1978). In addition, there is considerable evidence suggesting that behavioral interventions effectively treat forms of sib that are correlated with medical disorders, as well as for cases for which there is no known biological basis. Hence, medical treatment may be unnecessary.

Behavioral Approaches

Within this framework, sib and stereotypy are viewed as operant behaviors that are affected by their consequences and controlled by antecedent stimuli that signal differential consequences. Behavioral treatment includes either rearranging these antecedent stimuli or rearranging consequences for the behavior. One of the primary attractions of the behavioral approach is its emphasis on experimentally analyzing the effectiveness of various techniques (Favell et al., 1982a).

When designing interventions to decrease inappropriate behavior, the least restrictive treatment model must be followed. Procedures for decreasing maladaptive behavior can be ranked according to their aversiveness, intrusiveness, and severity. Treatment usually begins with the least restrictive alternatives until the aberrant behavior is controlled.

Foxx (1982) divides reductive procedures into three levels according to the level of intrusiveness. Level-1 procedures are the least aversive and include the following: (a) differential-reinforcement procedures which include differential reinforcement of other behavior (DRO), differential reinforcement of appropriate behavior (DRA), differential reinforcement of incompatible behavior (DRI), and differential reinforcement of low rates (DRL); and (b) satiation. Although differential reinforcement is used in virtually all interventions, satiation is not typically used in treatment programs for self-injury and stereotypy.

Level-2 procedures consist of: (a) negative practice (when manual guidance is not used, (b) extinction, (c) response cost, and (d) nonexclusionary timeout. Negative practice, in which the client repeatedly practices the undesirable behavior, is not recommended for treating sib and stereotypy.

Level 3 represents the most aversive and intrusive procedures and includes: (a) exclusionary timeout in which the student is actually removed from the setting, (b) physical restraint, (c) overcorrection, and (d) type-1 punishment (also termed positive punishment) in which an aversive event is presented. In general, level-3 techniques should not be implemented unless at least one of two things have been done first: (a) data from level-1 or level-2 techniques indicate that, even after modifications are made, the intervention did not lead to a significant reduction in the aberrant behavior; or (b) a review of the treatment literature indicates that less intrusive techniques have been ineffective for the particular type of problem that has been targeted. In general, legal guardians and administrators should be apprised of any intervention program. For level-3 procedures, it is highly recommended that written permission be obtained. For aversive procedures, permission also should be obtained from the human-rights committee, or comparable committee, in the area. Detailed explanations of these behavioral procedures for all three levels can be found in numerous sources including Epps (1983), Foxx (1982), and Sulzer-Azaroff and Mayer (1977).

Rearranging antecedent stimulus conditions. As it relates to self-injury and stereotypy, stimulus control refers to the fact that these behaviors are more likely to occur in some situations than in others. The treatment implications of stimulus control involve identifying, and then providing the person access to, stimulus conditions that are reliably associated with little or no sib or stereotypy (Favell et al., 1982a). For example, after running someone who engages in these aberrant behaviors through the pretreatment experimental analogue conditions, situations may be identified in which low or zero rates occur, such as a toy or cuddle condition or a situation in which stimuli are familiar and predictable. Once these are identified, the environment is rearranged in order to maximize these discriminative stimuli. At first it may be necessary to produce a temporary, artificial condition such as one in which the person is held and rocked (cuddled) most of the time. As low rates of the aberrant behavior begin to occur, the next stage of intervention, which is absolutely essential, is to fade treatment procedures. Thus, the individual could be cuddled first. Gradually, less and less time is spent actually holding and rocking the person. The therapist may then begin to sit next to the person and even begin to increase the distance between the two. Environmental demands, such as those functional activities that are as appropriate as possible for that person's chronological age and developmental level, are slowly introduced until, ideally, they occur at a relatively comparable rate as that which will occur in the person's natural environment.

Initially introducing the person to a situation in which little sib or stereotypy occurs helps to control the problem. Then reducing the intrusiveness of the treatment and gradually reintroducing naturally occurring stimuli facilitates maintenance so that the improved behavior persists over time. Within this approach, analyzing and taking advantage of antecedent stimulus conditions is supplemented with contingent reinforcement. Such reinforcement procedures are used with all behavioral approaches, including those in which punishment is employed.

Just as sib and stereotypy may be treated by identifying and then providing the person access to conditions that control low rates of these behaviors, a complementary approach is to identify and then to rearrange antecedent stimulus situations that control high rates (Favell et al., 1982a). These situations, of course, will differ across clients (making the initial pretreatment analysis necessary). Data collected during the analogue analysis may indicate that a barren environment with neither toys nor persons present (the Alone condition) effects high rates of sib and/or stereotypy. Part of the treatment package, thus, could remove the client from these situations and provide her/him with an enriched environment. Some situations cannot and should not be avoided or eliminated, such as those in which training occurs to help the person become more independent in a self-help activity; these should be presented gradually as was done in the earlier example in which cuddling was part of the treatment (cf. Carr, Newsom, & Binkoff, 1976).

Differentially reinforcing alternative behavior. The principle of differential reinforcement means that reinforcement is delivered for appropriate behavior (DRA), for the occurrence of behavior that is incompatible with and cannot occur simultaneously with aberrant behavior (DRI), or even simply for any other behaviors besides sib or stereotypy (DRO). No reinforcement, or as little as possible, is provided for sib or for stereotypy. The goal of differential reinforcement, then, is to weaken the inappropriate behaviors, in this case sib and stereotypy, and to strengthen more desirable ones so that they become the predominant means of obtaining reinforcement. For example, compliance to requests, communication skills, and leisure skills can be reinforced in an attempt to increase their strength, thereby decreasing the strength of sib and stereotypy. Detailed information about how to implement these procedures and how to maximize the effectiveness of reinforcement can be found in Epps (1983) and in Sulzer-Azaroff and Mayer (1977).

In studies in which DRO and DRI were employed by themselves to treat sib or stereotypy, sometimes they were effective while other times they were not. It is possible that some adjustments needed to have been made such as using a more powerful reinforcer. More likely, perhaps, differential reinforcement procedures may not have worked in certain instances because the aberrant behavior was not controlled by positive reinforcement alone. In these studies, a pretreatment analysis was probably not done to analyze the controlling contingencies.

Differential reinforcement procedures, even though they may be ineffective when used alone, are often useful when used along with other treatment procedures in which a consequence, such as timeout, is presented contingent on the occurrence of the sib or stereotypy. Overall, differential reinforcement should be included as a component of any treatment program so that the person's aberrant behavior can be replaced with more appropriate behavior.

Withholding or removing reinforcment. The two procedures most commonly employed in this type of approach are extinction and timeout from positive reinforcement. Response cost, in which specified amounts of reinforcers are removed contingent on the occurrence of the undesirable behavior, is not typically used to treat sib or stereotypy. (See Whitman et al., 1983, for examples of studies in which response-cost procedures were implemented.) Instead, a timeout procedure is generally employed.

Extinction is simply the non-delivery of reinforcement; no aversive consequences are delivered. If the reinforcer is withheld, eventually the behavior, regardless of whether or not it is appropriate or inappropriate, will decrease to its prereinforcement level. As a treatment procedure, extinction seems relatively simple, but it is not always easy to implement. It can have a long lasting effect on a behavior and can be easier to implement than some treatment procedures because the change agents do not need special materials. Another advantage is that extinction is a relatively nonaversive treatment procedure in that no unpleasant consequences are delivered. But because of the possibility of an extinction burst, in which the sib or self-stim may increase in frequency and intensity, and extinction-induced aggression, it may not be the most appropriate intervention (Epps, 1983).

There are other disadvantages to extinction as well. The reinforcers maintaining the sib or stereotypy can be very difficult to identify, especially when they are maintained on very thin reinforcement schedules. There might also be several reinforcers that are maintaining that aberrant behavior. All of these must be withheld contingent on the occurrence of the inappropriate behavior if it ever is to be extinguished. To determine which reinforcers are maintaining the behavior, the event or object that seems most likely to be maintaining it should be identified and then withheld. If the behavior drops below baseline levels (after the extinction burst), one of the reinforcing contingencies has probably been identified. To be more confident that this reinforcer is functionally related to the sib or stereotypy, one could discontinue extinction conditions and allow the reinforcer to occur again. If the aberrant behavior increases and then decreases when the reinforcer is withheld (a reversal design), then it is very likely that one of the sources of reinforcement has been identified. This procedure should be repeated for every event that is a possible reinforcer (Epps, 1983; Sulzer-Azaroff & Mayer, 1977.

In general, extinction is an appropriate reductive procedure in situations in which the reinforcer can be identified and reliably withheld and when individuals will not hurt themselves due to the high rate and intensity of the aberrant behavior during the extinction burst. Although it is not usually used alone, extinction can improve the effectiveness of a treatment package. It makes good sense to remove or to reduce the level of reinforcement for sib and stereotypy.

Timeout involves the removal of reinforcement for a certain period of time contingent on the occurrence of the undesirable behavior (Epps, 1983; Sulzer-Azaroff & Mayer, 1977). There are two kinds of timeout: nonexclusionary and exclusionary. Nonexclusionary timeout allows clients to stay in the reinforcing environment, but denies them access to reinforcing events for a particular period of time. It is a level-2 reductive procedure in the least restrictive treatment model and can take a variety of forms. The client can be turned away from an activity or placed in corner or chair. Facial screening is another type of nonexclusionary timeout. It involves the brief use of a terry cloth bib to cover the subject's entire face contingent on the occurrence of an inappropriate behavior. Facial screening has been used effectively to suppress a variety of self-injurious behaviors (Lutzker, 1978; Singh, 1980; Singh, Beale, & Dawson, 1981; Zegiob, Alford, & House, 1978).

There is a question about the recommended duration of facial screening. Singh et al. (1981) examined the differential impact of three durations: 3 seconds, 1 minute, and 3 minutes. Their data indicated that a 1-minute duration facial screening was most effective both in terms of immediate response reduction and short-term generalization. It is important to note, however, that the optimal duration will vary across subjects (and perhaps even within a subject or different aberrant behaviors). Therefore, change agents should attempt to determine empirically which duration is most effective. The alternating treatment design (Barlow & Hayes, 1979) is particulary advantageous for this purpose.

A variation of facial screening is visual sensory extinction which uses an eye screen rather than a bib. It has been found to be an effective technique for decreasing stereotypy in autistic children (Rincover, 1978; Rincover et al., 1979). A possible shortcoming of facial screening and visual sensory extinction is that both require special equipment that may make it difficult for staff to implement in applied settings. A similar but more convenient technique, termed visual screening, consists of contingency placing one hand over the subject's eyes in order to eliminate any source of visual input while simultaneously holding the back of the person's head with the other hand. McGonigle, Duncan, Cordisco, and Barrett (1982) found visual screening to be effective in eliminating a variety of stereotypic behaviors. In addition, their follow-up data at 18 months indicated long-term maintenance of the suppression.

The second kind of timeout, exclusionary timeout, consists of contingently removing the client from the reinforcing environment. A separate timeout room or hallway may be used or a partition could be set up. It is more intrusive than nonexclusionary timeout because the person is actually removed from the setting.

There are numerous details that must be attended to in order to use timeout appropriately and effectively (Epps, 1983; Foxx, 1982). First, it is essential that the time-in area be reinforcing. A timeout procedure will not be effective in reducing a behavior if the environment is nonreinforcing or even punishing to the student. For example, if individuals are in a high-demand situation and being to engage in self-injury, timeout by removing them from this situation would not be appropriate. In fact, removing them from this unpleasant situation actually may serve to reinforce the sib! In this instance, timeout may function as a negative reinforcer that increases the sib because by slapping themselves, they can get away from their unpleasant environment in which demands are abundant. They may self-slap so that they can go into timeout and get away from the stressful learnign situation. Similarly, if someone is in a classroom characterized by novelty, uncertainty, and/or conflict and begins to engage in stereotypy, timeout would likely be ineffective.

Second, when individuals are in timeout, they should not be receiving any reinforcement. For example, if Joseph is placed in chair timeout for headbanging, the chair obviously should not be facing a turning mobile if he likes to watch it. Similarly, if Joseph likes to listen to music, leaving the record player on while he is supposed to be in timeout is inappropriate. If he likes attention from people, it also would be important not to talk to him, even in the form of reprimands, while he is in timeout. Under such conditions, timeout is reinforcing rather than nonreinforcing.

To ensure that timeout is nonreinforcing, changes can be made in the environment, such as by turning the student away from an activity, or in the behavior of change agents, such as by not interacting with the student. Still, however, it may not be possible to create timeout from positive reinforcement in some cases. What is designated as a timeout procedure in fact may be reinforcing for someone who frequently engages in stereotypy. Therefore, the stereotypy may inadvertently be reinforced. When placed in what is intended to be timeout away from any other activities, the person may engage in stereotypy even more. In general, for someone who frequently engages in stereotypic behavior, or who has the highest rates of self-injury in the Alone condition, timeout is not the treatment of choice.

Physically restraining. Physical restraint is an intrusive level-3 procedure used almost exclusively to treat severe cases of self-injurious behavior and occasionally to treat stereotypy. (It is also sometimes used to treat dangerous and highly disruptive behavior.) Foxx (1982) defines two types of physical restraining. In behavioral physical restraining, individuals are prevented from moving parts of their bodies for a brief prespecified period of time, which is usually not more than 30 minutes, contingent on the occurrence of the aberrant behavior. It is used as a negative consequence and is designed to reduce the future occurrence of that behavior. It is a programmatic intervention in which treatment data are collected.

Custodial physical restraining, however, is not used as a consequence. It is a noncontingent procedure in which individuals are prevented from moving parts of their body noncontingently and for an unspecified period of time. One type of custodial physical restraint is ordered by a physician and is used in situations to subdue agitated residents, typically by strapping the persons to their own beds and injecting a tranquilizer. This restraint usually remains in effect until the physician cancels it. A second type of custodial restraint involves the use of restraint to prevent sib. For instance, a head banger may wear a protective helmet, which often looks like a bicycle helmet, that is snapped in such a way that it cannot be taken off. Individuals who hit their face or bite their hands or arms may wear arm splints that prevent them from bending their arms. Such persons often wear their restrainings both day and night.

Although these custodial restrainings may prevent sib from occurring (a head banger may still bang his head against things, but will not sustain as much, if any, injury), they do pose several problems. First, the restraints are likely to restrict a student's involvement in various educational activities. For instance, people in arm restrainings cannot feed themselves or engage very easily in other functional activities. Second, the restraints could cause muscle atrophy if the person wears them for long periods of time. Chronic restraint may also engender demineralization of bones and shortening of tendons (Lovaas & Simmons, 1969). Third, if individuals struggle against the restrainings, they will become stronger and perhaps even more difficult to manage because, in effect, they are doing isometric exercises. Fourth, the restrainings themselves may become reinforcing over time. This author worked with a severely retarded adolescent, Paul, on an inpatient basis. He bit his hands to the point of bleeding if he did not wear his arm restraints, which looked like casts that a person with two broken arms wears except that they were straight and extended from his armpits to his wrists. The interesting point is that Paul held them on himself with his fingers. If he released his grip, they fell off. They apparently had become reinforcing. The sheer weight of the restraints had caused Paul to develop large, muscular shoulders. He looked much like a swimmer rather than someone who did nothing with his arms except hold on two arm restraints.

This fourth point is often overlooked, but is particularly important to consider when employing restraints in the treatment of self-injury. There are some very interesting data indicating that physical restraint can indeed serve as a positive reinforcer. Favell, McGimsey, and Jones (1978) even used it contingently to increase toy play. Therefore, instead of applying restraint when the person engages in sib, it can be presented contingent on the nonoccurrence of sib. Then longer periods of noninjury can be required before the person can obtain the restraint. Favell et al. suggest that there are several factors that might contribute to the effectiveness of physical restraint. First, since many retarded individuals live in, or at least may spend time in, nonstimulating environments, it is possible that the stimulus-change components of restraint might constitute positive reinforcement. Second, restraining may also be paired with adult attention or associated with physical comfort. And third, an alternative explanation is that restraint may be paired with a reduction in certain aversive aspects of an environment such as high-demand situations.

This example brings us to a fifth problem with custodial restraints. They are permanent fixtures, until their use has been faded, that makes it quite obvious that the person is severely handicapped, thus presenting a significant barrier to normalization. Custodial restraints should not be used except for the most extreme cases. Certainly, there will need to be a team decision based on documentation that less intrusive treatment procedures were ineffective.

Although custodial restrainings should not be used without considering their necessity very carefully, they may be very appropriate in certain cases. Rather than letting someone inflict severe damage to the head, a protective helmet can be used. The important point to note is that a behavioral intervention should still be implemented.

There are two types of behavioral physical restraint, manual restraint and mechanical restraint. Both of these are used contingent on a certain aberrant behavior and for a preset period of time. In manual restraint, change agents use their hands or arms to restrain the person. In mechanical restraint, various things can be used to restrain someone including splints (such as those used with Paul) gloves, or mittens.

The primary advantage to using behavioral physical restraint is the immediate and complete suppression of the aberrant behavior; sib cannot occur during the procedure. Use of contingent restraining also may eliminate the undesirable behavior (cf. Dorsey et al, 1982). As with any reductive procedure, however, there are a number of disadvantages as well. The restraint may function as a reinforcer, and therefore, may be at least partially responsible for maintaining sib. Furthermore, it may in part be responsible for the lack of success sometimes obtained with nonaversive treatments that are often used in conjunction with restraint for severe sib (Favell et al., 1978).

Since restraint is likely to be different with different individuals and can serve either as a punisher or reinforcer, its function must be empirically tested in each case in which self-injury is a problem. An additional problem is the potential misuse of the procedure. Although behavioral physical restraint should be applied contingent on the occurrence of a severe behavior problem, it might be used noncontingently in a capricious or punitive manner when there are mechanical devices. Change agents who will implement the procedure need to be thoroughly trained and monitored (Epps, 1983).

Punishing self-injury and stereotypy. Punishment procedures represent the most aversive and intrusive level of reductive techniques and generally should not be used unless level-1 or level-2 treatment procedures have been systematically implemented and their ineffectiveness has been documented. In some cases, however, a decision is made to use punishment because of concern about the potential for physical harm and the need to control sib as quickly as possible (Whitman et al., 1983).

Punishment is a response-suppressing procedure that involves either the removal of a positively reinforcing stimulus, termed negative punishment, or the delivery of an aversive stimulus, termed positive punishment (Picker et al., 1979). Negative punishment is often generically called timeout from positive reinforcement. Usually, statements about punishment refer to positive punishment in which an event is delivered contingent on the occurrence of the aberrant behavior. These events are typically considered to be aversive or unpleasant, but technically they are punishers only if their contingent use decreases the future occurrence of the self-injury or stereotypy (Favell et al., 1982). There are a variety of punishers that have been used to treat these undesirable behaviors. Regardless of the one selected, it is usually paired with a loud verbal reprimand (e.g., "No!) in order to establish it as a punisher itself so that the more intrusive punisher can be faded.

Overcorrection is one type of punishment procedure. It is a level-3 reductive treatment procedure first developed by Foxx and Azrin (1972) that has two essential components. The first is called restitutional overcorrection which is designed to be a realistic punishment consequence of an inappropriate behavior. It is used when the student's inappropriate behavior produces some sort of disturbance of something in the environment. It requires the student to overcorrect the disruption by restoring the environment to a state that is much improved than before the inappropriate behavior. The second component is called positive-practice overcorrection which consists of having the student repeatedly practice positive behaviors. It serves a reeducation function with the goal of teaching the individual alternative behaviors. To determine what the person needs to do for this component, identify those appropriate behaviors that he or she should practice; then require practice contingent on the aberrant behavior (Epps, 1983).

Foxx (1982) describes an overcorrection procedure to follow for students who engage in stereotypic repetitive acts such as stereotypy or self-injury. Whenever students demonstrates these aberrant behaviors, they must overcorrect by remaining quiet and relaxed for a predetermined period of time. Therefore, they would be required to lie down quietly until they had calmed down and then to complete the overcorrection sequence.

Consider an example of an overcorrection procedure to use with Benjamin who engages in sib that consists of his slapping his face. The specific disturbance is that his face is covered with swollen red welts. The general environment disturbance is that he becomes agitated when he hits himself; therefore he does not attend to educational activities and generally disturbs his peers. The first step in this situation is to have Benjamin lie down on a mat until he becomes calm. This requirement will help him to calm down and should serve as an aversive consequence since it is timeout from reinforcement (provided that the environment contained reinforcing events). For the restitution component of the treatment procedure, Benjamin will be required to hold an ice pack to the place where he slapped himself. This part serves a dual purpose by reducing any swelling and by being a negative consequence since the feeling of cold ice is aversive to most people. For the positive-practice component, the appropriate behaviors he should practice need to be determined. In this example, a decision was made to try to bring Benjamin's hands under instruction control. Therefore, he was required to move his arms into one of three positions, up, sideways, or straight, when a change agent instructed him to do so (Epps, 1983).

Barnard, Christopherson, and Wolf (1976) used a different type of overcorrection procedure for head banging which consisted of applying an ice pack to the head for three minutes, washing the bumped area for two minutes, drying the head for one minute, and them combing or brushing the hair for one minute. This procedure rapidly reduced head banging in a three year old and four year old, but not in an 18 month old.

Whenever individuals place potentially harmful objects in their mouths, this unhygienic oral contact can be overcorrected by cleansing the mouth and lips with an oral antiseptic. This procedure is appropriate for some forms of sib such as self-biting and for such stereotypies as chewing or mouthing objects. Lamal (1976) found that Listerine delivered from a spray bottle reduced a five-year-old profoundly retarded girl's handsucking and chewing behavior to low levels. Furthermore, its use was faded until it only needed to be used three times a day.

When a person's inappropriate behavior does not disrupt the environment, only positive-practice overcorrection is used. Therefore, a restitution component is usually not included for many stereotypies with the exception of mouthing for which both restitution and positive practice are used. When the undesirable behavior consists of stereotypic repetitive act, overcorrection consists of having the person move the body part used in the aberrant behavior only when instructed to do so rather than when engaged in the repetitive act independently. A specific type of overcorrection is used for each type of stereotypy depending on the movement of the body part change agents want to bring under instructional control. Foxx (1982) provides the following examples of overcorrection procedures for several types of stereotypy.

When individuals randomly move their heads from side to side, the behavior is called head weaving. To conduct the overcorrection procedure, gently restrain the person's head. Once his head is still, instruct him to move his head up, down, or straight. Use full or partial graduated guidance to move his head in that direction if he does not respond to your instruction within a few seconds. Use shadowing if he voluntarily moves his head in the direction instructed. Have him hold his head in each position for 15 seconds; then instruct him to hold his head in a different position. In the early stage of treatment, the overcorrection sequence might last 15 to 20 minutes. When the head weaving is reduced to low levels, then the change agent can begin to shorten the length of time involved. The reader is referred to Epps (1983) or Foxx (1982) for explanations of graduated guidance and shadowing.

Body rocking occurs when an individual rocks forward and backward continuously while seated in a chair. Have the person move the upper part of her body forward in the chair and hold that position for 15 seconds; then have her move back and stay in contact with the chair for 15 seconds. Continue having her perform these alternating movements for 15 to 20 minutes using any of the three parts of graduated guidance as necessary. Shorten the time involving in completing the overcorrection sequence when body rocking has dropped to low levels.

For hand flapping (rapid flapping of hand(s) in air), hand gazing (staring at hand held up close to eyes), and paper flipping (continuous turning of pages), have the person lift his arms to various positions and hold them at each position for 15 seconds. Continue this sequence for 10 to 15 minutes using full and partial graduated guidance and shadowing as necessary. Decrease the required time for the person to perform the overcorrection acts when the aberrant behavior reaches low rates.

Overcorrection is like any other reductive treatment procedure; its effects will be more rapid and long lasting when it is combined with a reinforcement procedure (DRO, DRI, and DRA) that is in effect throughout the day, but not during the overcorrection sequence. It is essential that the client be reinforced for engaging in appropriate behaviors either on a continuous or intermittent schedule depending upon whether change agents are focusing on increasing or maintaining the desirable behavior (Epps, 1983).

Although the available research to date suggests that overcorrection brings about very rapid and long-lasting effects, it does have its disadvantages (Foxx, 1982; Sulzer-Azaroff & Mayer, 1977). First, because it is a complete procedure, there is the possibility that it will not be implemented correctly. Since change agents who interact with the client will need to be individually trained and monitored frequently, a considerable amount of consultant time is necessary. Second, the undivided attention of a change agent is required for a substantial block of time. This time involvement is particularly problematic for high-rate behaviors for settings in which few personnel are available. Arrangements may need to be made for an additional change agent to be present during the beginning of treatment. And third, because overcorrection is so physically intrusive, it is inappropriate for strong clients who resist graduated guidance.

In addition to overcorrection, there are several other events that have functioned as effective punishers for self-injury. Several studies have used aromatic ammonia. Tanner and Zeller (19756) used it as a punisher in treating a 20-year-old autistic woman who slapped herself repeatedly. A capsule of aromatic ammonia was concealed in the experimenter's hand and then crushed and placed under her nose until she stopped slapping. During treatment, there was a significant reduction in self-injury, although the sib increased to its original frequency after the treatment was discontinued. Implementing the contingent use of the aromatic ammonia a second time eliminated her sib. Because the capsules could easily be carried by the ward staff, her self-abuse could be punished consistently in a variety of settings. Altman, Haavik, and Cook (1978) and Baumeister and Baumeister (1978) obtained similar results with aromatic ammonia. Although it appears to be effective in reducing self-injury, it should be noted that there are only a limited number of studies that have investigated its use as a punisher. This procedure must be carefully monitored because aromatic ammonia can potentially lead to mucous-membrane damage (Favell et al., 1982a).

Mayhew and Harris (1979) point out two additional disadvantages to using aromatic ammonia as a punisher. First, a mobile person can move out of range of the fumes and thus escape or avoid the aversive stimulus. And second, since the fumes do not dissipate immediately, the subject may continue to experience the aversive stimulus even though the inappropriate behavior may have ceased. These disadvantages could pose a major threat to internal validity (the intervention and not some confounding variable truly accounts for the change in the target behavior) because of diffusion of treatment (cf. Kazdin, 1982). For punishment to be effective, the subject must be able to differentiate treatment (aromatic ammonia contingent on the occurrence of self-injury) and no-treatment conditions. Aromatic ammonia may not function as an effective punisher when diffusion of treatment is a problem.

Other punishers that have been used include water mist which is sprayed in the client's face (Dorsey et al., 1980), contintent hair tug (Griffen, Locke, & Landers, 1975), aversive ticking (Greene & Hoats, 1971), and unsweetened lemon juice/citric acid (Mayhew & Harris, 1979; Sajway et al., 1974).

A final punishment procedure that has been used in the treatment of severe cases of self-injury is aversive electrical stimulation which is also referred to as faradic punishment or shock. In this technique, a physically harmless but noxious electrical stimulus is delivered for a brief duration of less than three seconds immediately following each occurrence of sib (Butterfield, 1975). Aversive electrical stimulation has been widely researched and is the most generally effective method of initially suppressing self-injury (see Baumeister & Rollings, 1976, or Favell et al., 1982a for reviews). However, it does appear to be ineffective with Lesch-Nyhan individuals (Anderson et al., 1975).

Although highly effective in initially suppressing self-injury and usually within a very small number of applications, faradic punishment has several significant limitations. First, like any treatment procedure, it is not always effective. Romanczyk and Goren (1975) were able to suppress a 6 1/2 year-old boy's sib only after 10 months of treatment and more than 1,000 hours of intervention.

Second, although the suppressive effects can be relatively durable, there are instances in which sib returned after treatment (e.g., Birnbrauer, 1968). The suppressive effects of punishment are most likely to endure when contingent reinforcement for appropriate behavior is provided both during and after exposure to punishment.

Third, the effects of faradic punishment in reducing sib may be limited to the environment in which it is delivered. This lack of generalization of treatment effects also occurs with less intrusive procedures.

Fourth, there is a possibility that negative side effects will be associated with its use. Jones, Simmons, and Frankel (1974) found shock not only to be ineffective in suppressing sib in a severely retarded girl, but also to be associated with the appearance of other self-injurious responses. The authors later found extinction to be more effective. Simmons and Lovaas (1969) refer to other possible negative side effects including aggression, avoidance of persons delivering the shock and the settings in which it was delivered, and extreme passivity.

Fifth, the possibility exists that change agents may abuse this intervention technique and use this extremely aversive stimulus for responses other that sib. For example, staff have been observed using the buzz of the shock apparatus to coerce a child to drink (Tate & Baroff, 1966).

Finally, although faradic punishment has been found to be a powerful therapeutic tool with sib, it is an extremely intrusive and restrictive procedure that is painful and susceptible to abuse. It should not be employed by school psychologists in school settings. Intervention programs using shock treatment should be reserved for the most extreme cases of severe and intractable self-injury for which level-1, level-2, and other level-3 treatment procedures have been documented as ineffective. Moreover, these programs should be designed and supervised only by highly qualified behavioral experts with extensive training and experience in treating sib. The highest standards of professional service and human-rights compliance are essential (Favell el al., 1982a).

Monitoring Methods

The assessment and treatment of self-injury and stereotypy is a complex process that involves many crucial components. Psychologists who serve as change agents or consultants to change agents will need a thorough knowledge of behavioral assessment and intervention techniques. Systematic behavioral observation is essential throughout this entire process in order to collect frequent data on self-injurious and stereotypic behaviors. To monitor this process, the data must be graphed. This visual display quickly allows change agents to determine the environmental condition(s) under which the sib or stereotypy occurs and to evaluate the effectiveness of the intervention and the progress the person is making. It is important to graph data immediately after an assessment has been completed or at least before the next assessment is done so that timely decisions about a person's program can be made. Do not wait to graph data until the end of the week; otherwise, it may be too late to make the right change at the right time in the intervention, and the person's behavior could deteriorate (Epps, 1983).

The treatment of self-injurious and stereotypic behaviors consists of two goals. The first one focuses on reducing the aberrant behavior and replacing it with more adaptive behavior. When an intervention is effective in changing the behavior to the desired level, internal validity is demonstrated. When internal validity is lacking, change agents need to analyze the problem thoroughly before changing a treatment program. If the intervention still is not effective after this fine-tuned analysis and appropriate modifications, it should be changed. Monitoring the treatment program by taking frequent data will enable a change agent to know almost immediately when the program is not having the desired effect (Epps & Thompson, 1984).

The second treatment goal is concerned with the persistence of the behavior change and the transfer of training. The real significance of a decrease in sib or stereotypy is not realized unless the improvement continues to occur over time (maintenance) and in other settings besides the treatment setting (stimulus generalization).[1] To determine if this goal has been obtained, follow-up data or maintenance probes should be taken. Once the aberrant behavior reaches the desired level and components of the treatment package have been faded, change agents can stop taking data every day. However, data collection should not be discontinued altogether.

Depending on the situation, daily data collection could not be decreased to every other day or possibly to once a week. If the probes indicate that the person's behavior remains at an acceptable level, probes could be reduced further to once every 2 weeks and eventually to once month. Whenever a probe indicates that the individual's behavior has dropped below criterion, immediately (in another session the same day or the next day) take another probe. It is possible that the poor performance (e.g., high rates of sib or stereotypy) may be because the person had a bad day. After taking another probe, if the level of the client's undesirable behavior continues to be too high, reinstate treatment beginning with the least intrusive component of the intervention. This immediate reprobing is essential because it allows the change agent to correct problems when they first appear instead of letting several days or weeks go by before remediation occurs. Once acceptable response levels are noted again (usually for at least 3 days), thin, fade, and continue to take follow-up data (Epps & Thompson, 1984).

Just as maintenance probes are necessary for monitoring a client, so are they important when working with change agents. It is very important to monitor them as they implement treatment programs to ensure that they are being carried out as planned. This monitoring is necessary immediately after change agents have been trained as well as some time later. The change agents may be unaware that they are no longer implementing the maintenance program.

Although an intervention may be implemented only in 1 or 2 settings, change agents want to know if behavioral improvements generalize to untrained conditions. Therefore, in addition to maintenance probes, generalization probes should be taken. These are observations made to determine if transfer of training has occurred. The client can be observed in the presence of someone other than the change agent or in a different location. These generalization probes will provide data on the extent to which reduced levels of sib and stereotypy are apparent under different stimulus conditions (stimulus generalization). Generalization probes also can be taken on behaviors that are topographically similar and dissimilar to the specific form of aberrant behavior that was targeted

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[1] Maintenance and generalization will not occur unless specific programming is incorporated into the treatment program. A discussion of these techniques is beyond the scope of this chapter, but more information can be found in Alberto and Troutman (1982), Epps and Thompson (1984), and Stokes and Baer (1977).

(response generalization). For example, if an intervention was implemented for face slapping, would head banging also decrease?

Conclusions and Considerations

Since self-injury and stereotpy are potentially dangerous to an individual and interfere with adaptive day-to-day functioning, implementing treatment programs is usually a high priority. The etiology and maintenance of these aberrant behaviors must be viewed separately; factors associated with their onset may be quite different from those that subsequently maintain them. Although they are sometimes associated with genetic or medical disorders, they are typically viewed as learned behaviors that are shaped and maintained by stimulus conditions and environmental contingencies.

Change agents using a single technique, such as extinction or contingent protection equipment, are not likely to meet with must success. Instead, Favell et al. (1982a) recommend a comprehensive approach that includes several generic components.

1. A pretreatment analysis of medical and environmental conditions and consequences that could be maintaining the sib or stereotypy should be conducted. Moreover, this information should be explicitly included in the design of the treatment program. Such an analysis must be thorough particularly since any one client could engage in several different kinds of behavior (e.g., escape motivated, self-stimulatory, attention seeking) in any one day depending on the situation. Hence, sib and stereotypy need to be viewed as multiply controlled operants.

2. It is not enough to focus only on reducing the sib or stereotypy. Adaptive behaviors must be deliberately taught and reinforced so that the individual learns more appropriate ways to receive reinforcement. Sometimes stereotypy involving toys can be substituted for self-injury. By reinforcing toy play and toy holding, sib such as hand mouthing and eye poking can be reduced in some clients (cf. Favell et al., 1982b). The toy play should be topographically similar to the sib. For example, toys that have visual properties (e.g., a plastic prism that creates highly visible flashes of color and light when held to the window) could be used with eye pokers and large, soft toys that produce a sound when manipulated could be used with hand mouthers. Even for cases in which there is little increase in appropriate toy usage, stereotypic behavior such as mouthing toys is far preferable to self-injury in the form of hand mouthing for low functioning individuals whose repertoires are so impoverished that they have virtually no other behaviors to engage in to occupy their time.

3. Reinforcers (such as attention, escape, or sensory stimulation) for sib and stereotypy should be identified and discontinued by using extinction or timeout procedures.

4. Stimulus conditions associated with the nonoccurrence of sib and stereotypy should be provided. Environmental conditions (e.g., novelty, uncertainty, and conflict) that are associated with these behaviors should be altered or eliminated. This information can be gathered by conducting a situational analysis. If sib or stereotypy occurs only under one condition, treatment may consist simply of restricting the person from that situation provided that it is not an essential activity such as eating (Epps, 1983).

There will be times when a decision needs to be made about whether to use punishment procedures. Whenever possible, change agents should follow the least restrictive treatment model. Punishment should be considered immediately for inclusion in an intervention (a) in cases in which the individual is in imminent danger or when the sib or stereotypy is so intrusive that it interferes significantly with adaptive behaviors or (b) when less restrictive level-1 and level-2 procedures have been correctly implemented and systematically evaluated yet still have not lead to clinically significant reductions in the aberrant behavior. If the risk of injury is not likely to be immediate, but may arise with prolonged occurrences of the sib or stereotypy, then less intrusive procedures should be implemented.

In any setting in which an intervention is conducted for sib or high levels of stereotypy, the following requirements should be met in order to protect both the client and change agents (Favell et al., 1982a). These requirements are especially important for cases in which punishment is considered.

1. Treatment procedures for sib and stereotypy are complex. They should be designed, implemented, and monitored by highly trained professionals who have considerable expertise in behavioral techniques and who have worked with individuals who engage in sib and stereotypy.

2. It is recommended that any treatment program for these behaviors be reviewed and approved by a human-rights committee, who consider the rights of the client, and by a peer-review committee, who consider its technical adequacy and appropriateness. Informed consent from guardians also should be obtained.

Although numerous behavioral procedures have been documented in the literature as effective in reducing self-injury and stereotypy, it is not yet possible to predict if a particular technique or set of procedures will be adequate for an individual client. As such, interventions must be conducted openly and rigorously evaluated by examining several criteria: (a) degree and speed of response suppression, (b) durability of the suppression (maintenance), (c) stimulus generalization, and (d) negative side effects. In turn, treatment programs will be continued, modified, or discontinued depending on the data for that particular individual. Choice of a particular technique will depend, in part, on how many staff are available to work with a client, how much training they have had in the contingent application of behavior-management techniques, and how much time the psychologist or other consultant has to monitor the intervention (Epps, 1983).

In general, there is a high probability of relapse among individuals who engage in self-injury or stereotypy. In many cases, some form of intervention will probably need to be continued over an indefinite period of time. To increase the probability that suppression of these behaviors will continue over time and will occur across a variety of settings, specific programming for maintenance and generalization must be incorporated into all treatment programs.

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A Framework for the Introduction of Suicide

Marcel Slaats

Abstract: One must approach such a phenomenon as suicide with the greatest of caution, for any act that opposes the instinct of life is bound to arouse in us a set of reactions which interfere with clear and purely rational understanding of the phenomena itself. (Zilboorg, 1937)

Chapter Outline

Background, History & Theories 245

Assessment and Intervention 249

Questions and Answers 259

References 262

The understanding of suicide at the present time seems to this writer to be incomplete. However, this paper will attempt to highlight the history of suicide, briefly discuss the "theories of suicide," review the research, and then emphasize assessment and intervention of suicide. The survey of theories will be brief, and by no means exhaustive. Its intent is to provide a background. References are listed for those who wish to pursue theory further. The assessment and intervention section will implicitly include monitoring and follow-up of the adolescent. It is hoped that an appropriate therapy program, specifically tailored to the individual, will flow through the various stages from assessment through follow-up.

Background, History and Theories of Suicide

A brief historical glance at suicide immediately gives a perspective, or schema, to understand why it is still so poorly understood today. This is despite the fact that it is one of the leading causes of death for the most productive years of individual numbers of society, and the rate is increasing rapidly each year.

The history of suicide is, at least, colorful. It is an issue that has been dealt with on a legal, religious, and philosophical basis, and most recently, on a sociological and psychological basis. Legal aspects can be traced to the ancient Greeks and Romans. The Greeks approached suicide from a cognitive, practical point of view. The Stoics viewed suicide as a most reasonable and desirable way out of external misery. However, with this position, suicide became a major societal concern and was monitored by the Senate. Hence, Aristotle's contribution to suicide: that it is a crime against the State. It carried the force of law; unauthorized suicide attempts became punishable offenses.

Specific rules and regulations concerning suicide were clearly stipulated in the Roman Empire. Private citizens were allowed to commit suicide for good reason; "good reason" also included internal misery. If it was for no good reason, it was punishable because it was irrational. Different rules were applied to slaves, criminals, and soldiers. Since slaves were property of the State, it was a criminal act to attempt suicide, as it was the equivalent of robbing the owner of the slave's value. For soldiers, suicide was an act of desertion; therefore, unsuccessful and successful attempts, unless they were for the sake of honor, were punished by the loss of personal property.

Legal statutes concerning suicide did not disappear with the Greeks and Romans, persisting in modern day law. France dropped suicide from the penal code in 1791. England was still confiscating property of those who committed suicide up until 1871, and sent "attemptors" to jail until 1961. In fact, on the Isle of Man, a teenager was publicly birched for attempting suicide in 1969!

Religious aspects of suicide are extremely dichotomous and contradictory. Suicide in "primitive" religions is shrouded in superstitions and often magical powers are attributed to the departed spirits of the suicide. Interestingly, the superstitions and magical qualities underlie much of the Christian beliefs and "revenges."

Very early Roman Catholics (before A.D. 533) and many non-Christian Eastern religions saw suicide as a reasonable and desirable method to achieve everlasting salvation, and in some cases, revenge on one's enemies; i.e. rewards for filing suicide for the Vikings was Valhalla, martyrdom for the Roman Catholics was paradise and watching their torcherers burn in hell, the Hindu Suttee ritual promised reunion in later life.

It was only after Augustine (A.D. 533) began to change the view of the Roman Catholic Church did suicide become offensive. The Church then saw suicide as punishable and perhaps counter-productive to its growth, and by A.D. 693 it became an excommunicative offense and burial rites were refused. St. Thomas Aquinas (ninth century) argues that it was a sin against nature, therefore against God. Ironically, the Church's teachings were/are not based on scripture, but rather on the teachings of Plato. Despite the fact that there is evidence that animals will commit suicide under certain conditions (Williams, 1920), implying suicide is not "an act against nature," the Church's position has remained virtually unchanged!

Modern, systematic study of suicide did not begin until approximately 1879 by Henry Morselli, an Italian professor of psychological medicine. He began to use vital statistics to analyze suicide, finally bringing suicide into the field of science, and again removing the negative stigma of suicide. Much of the current sociological study of suicide, especially those by Emile' Durkheim, used a similar approach.

Overall, suicide in history has been treated as a purely rational phenomena, or as a moral indignation deserving to be damned. This dichotomy exists today. Much of the scientific literature today is frought with statistics (many of which are wholly inaccurate) and views suicide as a measure of sociological conditions rather than a complex phenomena of both psychological and sociological variables.

Durkheim (1951) proposed the first theory of suicide. This approach is sociological and is still the basis for most sociological research. Suicide is divided into three types: (1) egoistic, (2) altruistic, and (3) anomic, which are all produced by social situations.

Egoistic suicide is defined as a suicide that occurs primarily because the individual is not integrated into society and is left to his own resources. These cases arise when the individual does not belong to a group and no longer has an external source to monitor his or her behavior. Social isolation occurs. Hence, according to Henry and Short (1954), suicide risk increases when family structures disintegrate, and suicide risk, as a whole, decreases during times of national crisis when the society seems to be having a rallying point.

Altruistic suicide is the opposite of egoistic suicide. It occurs when an individual becomes too absorbed in a group so as to lose their individuality. In such cases, the person becomes willing to sacrifice themselves for the group. This category is more prevalent in primitive tribes and cultures.

Anomic suicide is defined as a suicide that is the result of a drastic change in the social position so that the person is unable to cope with the new situation. It results whenever old habits no longer seem to work.

Although these categories were intended to be distinct, there is overlap, specifically with egoistic and anomic suicides. Drastic changes in social positions may result in social isolation and break previous social bonds. If suicide would then occur, it would be difficult to classify it as egoistic or anomic.

Durkheim's approach to suicide emphasizes social conditions, and the vast majority of preventative measures are also social and nonspecific. Application to individual cases is difficult, except to say social factors must be considered when dealing with suicidal clients.

Henry and Short, Lester and Lester, and others have done extensive research using Durkheim's theory as a model. Overall, the social correlates postulated by Durkheim have received positive, although weak, support. Much of the sociological research is plagued with design problems, sample section problems, or are so general that very little useful information may be gleaned from it.

Psychological theories of suicide, like sociological theories, are incomplete and, at times, conflicting. Menninger (1934) probably has done more to attempt to postulate a cohesive theory of suicide. He proposed three aspects of a suicidal person: (1) the wish to kill, (2) the wish to be killed, and (3) the wish to die. He seems to imply, based on psychoanalytic principles, that as if killing a part of self, the "good" may be more apparent and be free to live. The memory of self by others will be good!

Freud, although writing little on suicide, implies it is somehow the result of the death instinct, the wish to return to Eros (inorganic matter). In suicide, the super ego totally dominates the psyche. The sadistic component of psychological life is completely anchored in the super ego and is pitted against the ego. The specific mechanisms for this process have not been defined. Behavior theory is likewise vague about suicide; however, some behavioral principles are extremely useful in dealing with suicidal clients and will be discussed later.

Further elaborations in specific theories do not necessarily clarify the phenomenon of suicide. Therefore, it is more expedient to review the research available, regardless of the theoretical orientation, to suggest correlates and intervention strategies.

Many researchers have attempted to identify specific variables or circumstances which contribute most to suicide. Although the majority of research efforts are correlate studies and have major flaws in design and population samples, they may be useful to infer appropriate assessment and intervention strategies until better research is available. What follows are general correlates of suicide and treatment strategies that are supported by research.

Suicidal Correlates

1. Young adults' suicide is often precipitated by some interpersonal problems. (Seidin, 1969)

2. Clients have been psychotic, immobile depression are low risk until depression begins to lift. (Joseph, 1965)

3. Suicide patients should rarely be hospitalized because of increased risk upon discharge. (Joseph, 1965)

4. If death of parent or other close adult took place prior to client's adolescence, then there is a great increase in suicidal risk at times of crisis. (Moss, et al., 1963)

5. Suicidal children have a high tendency to be "accident prone." (French, et al., 1979)

6. In children and adolescents, spite plays an extremely important role. (Bender & Schilder, 1937)

7. Suicidal adolescents have problems that are of long standing. (Jacobs & Teicher, 1967)

8. Forty percent of suicide victims have visited a medical/psychiatric service within one week of death or attempt. (Beck, et al., 1979)

9. Hopelessness is very often an underlying dynamic. (cited by numerous research papers)

10. Loss of interest in usual activities. (Wolman, 1976)

11. Behaviors often seen: (1) depression, (2) unsatisfying social relationships, (3) specific or implied statements, (4) planning for death such as saying goodbye, finishing things which are uncharacteristic, giving cherished items away, etc., (5) diminished interest in sex, appetite, hobbies, etc., and (6) early morning awakenings. (Schneidman & Farberow, 1965)

12. Adolescent suicides were often diagnosed as behavior disordered when in fact they were depressed. (Toolan, 1962)

13. 12:00 to 6:00 p.m. highest rate of suicide attempts. (Henry & Short, 1954)

14. The month of May is a peak time. (Henry & Short, 1954)

15. Nine girls attempt suicide to every one boy. (Lester & Lester, 1971)

Treatment Strategies Supported by Research

1. Family cooperation must be secured, in terms of establishing meaningful verbal communication with client. (Mattsson, et al., 1969)

2. Must make person feel better (temporarily) in first session. (Beck, et al., 1979)

3. Confidentiality and honesty is a must with suicidal adolescents. Must inform them of extent of confidentiality and when others must be involved. (Bosch, 1980)

4. Must ask questions in a matter of fact way to increase probability of honesty. (Bosch, 1980)

5. Must search for alternative problem-solving techniques. (Beck, et al., 1979)

6. Ask the patient about suicidal ideas:

    a. Inquire about plan,
    b. Inquire about method,
    c. Inquire about history or contact with suicidal behavior. (Wolman, 1976)

7. Anti-depressant drugs may reduce suicidal behavior at the time, but have no long range effect. (Beck, et al., 1979)

8. Must get person to commit themselves to therapy. (Beck, et al., 1979)

The assessment and intervention section that follows is based on the above information, personal experiences, and application of general principles of doing therapy in an eclectic manner. It is not always necessary to deal differently with a client just because that person is suicidal.

Assessment and Intervention

The assessment of suicidal risk and consequent intervention is not an exact science. One's personal theoretical orientation, i.e., Behaviorism, Psychodynamic, Cognitive, Neurophysiological, etc., and the complex and various motivations for suicide interact negatively when assessing suicidal risk. There is no single theoretical orientation that gives a satisfactory explanation to the phenomena of suicide. Consequently, if the psychologist is prone to use one orientation, he or she will be wrong at least as often as right in assessing suicidal risk. The adequate assessment and intervention in the presence of a suicidal risk is contingent upon:

1. Flexibility of the professional in his/her orientation.

2. Knowledge of potential parameters that increase suicidal risk.

3. Good clinical skills; e.g. listening with a "third" ear.

4. Obtaining the important facts.

5. Not being afraid (consciously or unconsciously) of the potential suicide.

6. Being familiar with a cross sample of intervention skills. Avoiding restrictions imposed via personal theoretical orientation.

7. Being active as a therapist.

As noted in the heading of this section, assessment and intervention are not separate issues here. The assessment of suicidal risk, if effective and meaningful, should immediately lead to some sort of intervention, usually in the first session/interview. The probability exists that with a potential suicide a second session may not come to pass without some immediate action on the part of the psychologist.

Within a school setting, the potential suicidal client may come to the attention of the psychologist through various sources, with a wide range of presenting problems and concerns. Therefore, it is paramount that the psychologist be familiar with as many parameters of the suicidal adolescent as possible. Much of the research on adolescent suicide is poorly designed, or contains little useful information when dealing in individual cases; however, it is all we have at this point. The first question one must ask when meeting with a referred adolescent is: Is he suicidal? If so, how suicidal? The referral reason may be of some help in answering the first question—or at least give the therapist some clue. If the student is referred because "he threatened to O.D.," that adolescent is suicidal. It is a myth that if a person threatens someone with suicide, he won't do it. About 80 to 90 percent of adults communicate their suicidal intent (Lester & Lester, 1971) and about 60 to 70 percent of the adolescents do. But the majority of these threats are ignored by significant adults (Marks, 1977). Typically, the referral won't be so blatantly clear.

The referral reason is often vague, i.e., "doing F work in my class," "seems withdrawn and dreamy," "seems to be a nice kid, but lately is getting into a lot of fights," etc. Any referral reason that suggests change in performance, either academic or social, should be treated as noteworthy. This is not to be an alarmist, but remember, the adolescent suicide rate has increased over 300 percent between the years 1967 to 1977, and this represents only one-fourth to one-half of all completed suicides (Heiden, 1981). For each completed act there are probably seven to ten attempts (Marks, 1977). (In concrete terms: in a high school of 1,000 students, five to seven students will complete or attempt suicide in any given year.) If the student's record shows he has never been referred until now, it should wave a flag. I am not suggesting that the above clues are definitive; they are not. However, many adolescent suicides have this pattern in their history. Another pattern which deserves consideration: the adolescent who hasn't been referred previously demonstrates a pattern of achieving below expectation and now has fallen even further below. Chronic depression could be present. (A much lower WISC-R profile than you would expect can also be a clue to depression.)

Optimally, one has the opportunity to review records and talk with others who may have had previous contact with the adolescent before seeing her/him. If the referral of the student is because he/she has threatened or suggested suicide, it is very important that as much information as possible about the student be obtained prior to contact. Specifically, information relating to family constellation (firstborns are over-represented, specifically firstborn females in completed suicide adolescents) (Cantor, 1972), friendships, prior threats, ideation concerning death or dying, gestures, previous willingness (or lack) to talk with adults, are important pieces of information to gather.

In reference to family constellation, it is important to determine whether or not significant family members know about the expressed threat/gestures, and/or if they can be relied on to be available to the suicidal adolescent. Furthermore, information concerning any recent turmoil in the family, i.e. death, separation, financial changes, recent move, etc., are important. A death of a parent, even if it occurred a long time ago, seems to be a very significant correlate in an adolescent suicide (Moss, 1957).

School friendships are also particularly important. A recent separation from boyfriend and/or girlfriend may often precipitate a crisis for adolescents. Has the student withdrawn from his/her usual circle of friends? Or did he/she ever have any close friends? The above types of information are very often available from the guidance counselor or homeroom teacher, or referring person. However, just as often, this kind of information is unavailable unless actively pursued; it is not typically volunteered.

Again, it is important to have this information, if possible, prior to contact with the student, even though he/she has threatened/gestured suicide. Just because he/she threatened suicide, "a cry for help" does not guarantee cooperation in any therapeutic encounter. In fact, most suicidal adolescents are uncooperative and are less than truthful (Glazer, 1978). In the cases where the student is less than truthful, it may be necessary to contact family and alert them to the situation. It is also important to let the student know this must be done to insure trust in the future (Bosch, 1980).

In the initial contact with the student, the more the student talks the better. An open, frank discussion about suicide, specifically their threat of suicide, does not increase the risk of suicide, but more often lessens the risk of the threat being acted on. During the session, information concerning (1) suicidal plan, (2) time frame, (3) opportunity, and (4) means, may be obtained. Obviously if all of the above elements exist, that student is an extremely high risk of completing suicide. Even if only one or two elements exist, the risk of suicide can be quite high.

If it is known that threats or gestures have been made in the past but not carried out, this does not mean it won't be this time. If not paid attention to, the student may attempt (or complete suicide) to demonstrate he/she is serious or to exert control. Often times those who use suicide threats to manipulate others have few effective methods available to them to influence their environment and may be quite desperate (Marks, 1977). "Sue H." was such a case. She had been referred several times because of suicidal behavior (took sleeping pills, called the ambulance; slashed wrists shallowly). None of her attempts were "life-threatening." In the fall of her senior year she was again referred because she was threatening suicide. Her threat was not attended to (she was seeing a psychiatrist). One month later she called her therapist threatening suicide. He was at the time busy seeing another client, and said he would talk to her later. She called back later and got the same response. She went into the garage while her brother and father were in the house and killed herself with her father's hunting rifle. It is my feeling that her suicide was a result of her felt inability to control her environment and the awareness that her previous successful method (threatening the attempt) no longer worked. Maladaptive as a response pattern, this type of suicide can often be prevented, provided an active and elected strategy is utilized.

Let us return now to the initial question of whether a person is suicidal. Most commonly, the student referred has not outwardly threatened suicide. This may be a student whose school performance or peer relationships have recently changed significantly (or any of the above mentioned points), and in the initial contact is not very communicative. He/she may appear "down," hostile, negativistic, or uncooperative. The psychologist may know very little about past history, except that the student previously was not referred, grades were adequate, but school performance is presently poor. In situations such as this, it is extremely important to give that student the opportunity to explain his/her predicament. Remember, when the situation is such that the student's present behavior pattern is markedly different form previous behavior, it is not a jump to conclude that something is going on. It is often the case that he/she has never been asked to explain what is going on from their perspective. In the case of suicidal ideation, the idea may be so scary to them that they feel others (especially adults) will see them as "crazy" for having these thoughts.

Since the psychologist is trying to ascertain if this person is suicidal, the logical (and best) step is to ask the student directly. If, because of clinical misjudgment, the question is way off base, the student may actually feel better because their problem dwarfs in comparison. When one asks a student if he is suicidal, phrase the question very directly, i.e., "Are you thinking of suicide?" or "Have you thought of suicide?" Indirect questioning such as "You are not thinking of suicide, are you?" invites the person to deny such thoughts and further conveys the psychologist's own feelings of dealing with suicide (Glazer, 1978). In using clinical judgment, you will make errors. But the cost of these errors are very minimal when weighted against the fact that a "false negative" would be lethal.

When assessing suicidal risk, it is usually not appropriate to do testing in the initial session. For one thing, there is currently no instrument that is more reliable in predicting suicide than the student's self-report (Beck et al., 1979). Secondly, testing often increases anxiety and self-doubt which would be counterproductive in the case of a suicide. Furthermore, it may interfere with the main objective of the first sessions: establishment of a problem-solving, accepting relationship. Testing may make the adolescent uncomfortable, feeling test results will be unfavorable. If it has been reasonably determined and communicated between psychologist and adolescent that a suicide risk exists, then Beck's Suicidal Scale (Beck, et al., 1979) may be considered. This short, self-rating scale may be useful in determining present risks only and may be used frequently to assess growth. It is not a predictive measure. For example, if one would give the Beck's Suicidal Scale on January 20, 1987, it would only be valid for January 20, 1987. It would not measure the suicidal risk that may or may not be present February 12, 1987.

If it has been reasonably determined that the adolescent poses a risk, the psychologist must make a choice: Does this person need to be hospitalized, or should he/she be dealt with outside of the hospital? This choice is not as easy as it may seem. Research indicates that suicidal persons face an extremely high risk of completed suicide when discharged from the hospital, often a higher risk than before admission (Joseph, 1965). Hospitalization, while possibly serving as a deterrent to suicide, also isolates the person from meaningful social contact. By further impairing the adolescent's social functioning, one of the main precipitants of suicide, hospitalization may decrease the chance of recovery in the long run. In the prevention of suicide, remember that the hospital is not a perfect institution with unlimited resources. When this writer was working on a psychiatrist unit of a community hospital, several patients completed suicide (hanging) when in the confines of the psychiatric unit.

There are, however, some clear situations which require hospitalization:

1. The extremely angry, uncooperative, possibly anti-social adolescent who has demonstrated acting out behavior in the past and is presently threatening and/or attempting suicide.

2. Very "depressed" isolated, uncooperative persons for whom there is no reasonable support person (parents, close friend, etc.) who can be relied upon to monitor the adolescent between meetings. If it is felt that hospitalization is the only way to stymie the attempt/completion, obviously the referral must be pursued. In most other situations, alternatives to hospitalization may be the most reasonable.

In dealing with the suicidal adolescent, whether the student was referred because of threats, gestures, or other reasons, the psychologist must now become active, inventive, and emotionally supportive. In my opinion, the psychologist must be, therapeutically speaking, eclectic. Contrary to common belief, suicidal adolescents are not a homogeneous group who respond to a narrow band of intervention techniques. There are, however, basic guidelines that are applicable. Remember that any intervention has a goal; with a suicidal adolescent, that immediate goal is simply preservation of life, and the long range goal is "for adaptive functioning." The school psychologist should have an extensive repertoire of techniques available which facilitate active involvement.

Elicit commitment. Employ techniques that will elicit commitment from the client, a commitment that carries over from one session to the next. I have fund that a contract can be quite effective. When setting up a contract, you must be sure to elicit a definitive commitment from the student, written in unmistakably clear terms. Do not be content with a passive agreement. It is often necessary to approach the contract on a personal, emotional level where the emphasis is your feelings, not the students, i.e., "Jim, I know you feel ________ and don't much feel like living right now, but I would feel really bad and awful if you died before our next session. I think you're worth a lot, but I know you may not feel that way right now, so would you be willing to hold off on doing anything extreme until after our next session? Or at least give me a call before you do anything if you think you can't wait and you feel that badly. I would feel a lot better if you would promise me this."

The length of time between sessions or contracts is, of course, variable, ranging perhaps from one day to a week. It is necessary to get the adolescent to respond with a firm "OK", or "Yes, and I'll call if I need to," or "I promise." A "Ya, I probably can promise that," type of response is not good enough. The . . . "probably" . . . tells you that the adolescent is not really committed to the contract, and it will have no deterent effect whatsoever. After eliciting a firm commitment, write it out, sign it, and have the adolescent sign it as well. Have a number on it where you could be reached and both keep a copy. From this example, you can see that the major components are:

1. Your feelings about the adolescent.
2. The effects their behavior would have on your feelings.
3. Implicit statement and acceptance of their feelings.
4. How to reach you if they can't wait until the next session.
5. Both signatures as symbols of commitment.

Before leaving the session, have them repeat to you their commitment. This way you can be assured that, at least for now, an active commitment has been made.

Another technique that may elicit commitment is to provide the individual with some helpful, incomplete ideas with the promise that these ideas will be extended or completed at the next session. The sense of incompleteness can raise the curiosity and investment in the therapy process. This technique is often useful in conjunction with the contract.

Also, you may give a "homework" assignment to the client that is to be returned the next session. This can be quite effective with adolescents who have a track record of being reasonably responsible or "compulsive." Be sure, however, that the homework assignment is relevant to the student, and they agree to do it. What is a relevant homework assignment will, of course, vary with each person; however, the following have been used successfully:

1. Sach's Sentence Completion Test.

2. Listing of pros and cons of living, and of dying.

3. Listing personal qualities, both good and bad.

4. Listing reasons why she/he did not want to die before, etc.

Set limits. This is especially important with an adolescent who has demonstrated an acting out disposition. It may be very important to let the individual know what is and is not tolerable, acceptable behavior.. It is not necessary to have developed rapport prior to setting limits (Bratter, 1976). In fact, it may be that the only way to establish rapport is by structuring the milieu of the adolescent immediately. It may be that the adolescent has been looking for someone who cared enough about them to set limits, and the attempted suicide was a culmination of attempts on their part to get someone to set effective and reasonable limits for them. It is the discussion of the limits and consequences implicit in these limits that become the vehicle by which, not only rapport, but therapeutic progress is made. These limits obviously should be geared to reduce social conflict, increase "impulse control," and promote verbal mediation to solve problems. Remember that in an acting-out adolescent, feelings are immediately translated into a motor response with little verbal mediation to temper the response (Bellack, 1963).

The role of others. Involve others (teachers, parents, peers, etc.) whenever and however possible. With adolescent suicides, there usually are disturbed social relationships or a lack of any meaningful relationship. In order to prevent future suicide attempts, the adolescent must begin to establish positive social interactions. By actively seeking the cooperation of others to assume some of the initiative, the therapist can arrange some positive social interchanges for the adolescent. These interactions then can have a remarkably positive effect on the student's self-esteem. It can often begin to break the pattern of self-defeating behaviors, and begin to change their own faulty cognitions and their negative self-evaluations. Following are some suggestions that can be implemented in a high school setting:

1. Participation with a peer counselor, if the school has a peer counseling program. Talking with a peer on a constructive, even though "artificial" basis can be the first positive peer interchange for that student.

2. Involve the adolescent in some minor extra curricular activity, such as prom decorating, homecoming float, etc. Their part can be minor, but the process of social withdrawal can be inhibited. Furthermore, any social participation at the request of the therapist encourages commitment to the therapeutic process.

3. Depending on the parents, try to involve them directly in the counseling process. They may be encouraged to meet with the therapist and the student or with the therapist alone. I encourage the former. Meeting with parents alone runs the risk of alienating the adolescent and jeopardizes any rapport that may have been established.

   By meeting as a family, the psychologist has an opportunity to evaluate the quality of interchanges between parent and adolescent, and can begin to reestablish realistic lines of communication. In many cases, the parents will have been ignorant of the adolescent's emotional desperation, and a reasonable alliance between parent and adolescent may become established (Mattsson, 1969).

   Obviously, if the psychologist feels that the lack of parental cooperation would impede the counseling process, separate meetings cleared by the adolescent may be the best or the only alternative. The issue of confidentiality and ethical considerations toward the well-being of the adolescent come into play; the ethical responsibility of the psychologist to communicate to those response for the welfare of the student must override laws of confidentiality.

4. Usually, there will be one teacher or the guidance counselor who gets along with or likes the student. Very often this person will be willing to arrange some activity or assign some favorite responsibility to the student. In this way, social contacts can begin to be widened.

   Suggestions for each group (parent, teacher, peer) have been included. Whenever possible, one should include as many "domains" in the adolescent's life as can be reasonably accomplished.

Role playing. Consider using role playing, particularly when the adolescent must assume the role of someone else and you can "play him." This process may allow the adolescent to begin to see her/himself in an objective way and also begin to see how others view him. Further, it allows the psychologist to exaggerate symptoms and responses that the student or client uses, which are counterproductive to effective functioning, without having to confront the adolescent directly.

Through role playing, the psychologist can also model alternative forms of responding, and allow the adolescent to experience/observe the various forms. It is an indirect way to encourage modeling, and a very direct way of teaching problem solving behavior. The process also serves to undermine the rather rigid and dichotomous thinking of suicidal clients (Neuringer, 1964). It also, subtly, allows the adolescent to experience ownership of the present emotional disposition without having to lose face. In role playing, the adolescent is free to accept or reject your portrayal of them. Role playing then can become a very effective method of establishing rapport within the framework of a problem solving relationship.

Third ear. Listen with a "third ear." By listening with a "third ear," you are doing much, much more than listening to the content being expressed. You are "listening" for inconsistencies between an expressed affect and felt affect. You are being sensitive to content that will give you some insights. You are listening for emotionally problematic areas that the adolescent is experiencing but fearful to deal with. You allow the adolescent to talk about whatever he or she may wish, and at the same time, you may become aware of salient issues or concerns that would best be dealt with indirectly. Let me use an example to illustrate:

> A junior in high school, Sue, was admitted to a local hospital psychiatric unit where I was working. Her attempted suicide was by a drug overdose (LSD, grass, alcohol). It was listed as an "accidental" overdose, however, she later acknowledged it was a reasonably conscious attempt on her part to "escape permanently." In the course of several sessions, Sue talked about her conflicts with mom and dad, her younger brother, a sophomore, as well as her difficulty maintaining close social contacts with her girlfriend over the past several months. Although she did date in her freshman and early sophomore year, she "had no interest" in dating since then. In fact, she said she didn't enjoy group activities when there were boys around. As she said, "they are so immature and boring." In light of her previous interest in boys, her history of being reasonably social, and the fact that she was "resistive" to talking about this further, I suspected that it was a difficult area for her emotionally. As part of the hospital activities, I arranged for her to go on "bowling" night with several other patients her age (male and female) with adult supervision. When we later discussed the evening, she said she was mad that there were boys along because they could be so boring. During our discussion of why she was mad, it came out that she was afraid they would "make a pass" at her and she wouldn't know what to do. She later acknowledged that that was also why she refused dates since her sophomore year. This breakthrough opened up the way to deal with the large "domain" in her life that was critical towards her overall development. It clearly did not solve all her problems, but it did open up an important area upon which problem solving techniques could focus.

Colleagues. Consult with colleagues. When doing therapy with a suicidal adolescent, I think many of us may be unwilling to ask others for suggestions out of fear of seeming incompetent. We may be afraid of what others may think if our intervention is not effective and the person completes the suicide. We may be hoping "if I don't ask anyone, then maybe no one will know I am seeing this person." These statements reflect our own insecurities, and patently can interfere with conceiving of a sound treatment plan. By consulting others, we not only increase our personal repertoire, but may often discover a key to the situation that eluded us in our musings. By consulting other professionals, we need to clarify the situation for them, and for ourselves.

Language. Use the adolescent's language. It has become a cliche that teenagers have their own language, and to become accepted by them, you must at least be familiar with their idiosyncratic use of words. By at least understanding their language, you convey respect for them and begin to communicate with them. Using both your language and theirs, you convey to them that you respect them, but are also not one of them. It is important not to use their language exclusively since they may interpret that to mean that you are trying to be "in." This position is often met with antipathy on their part (Flavell, 1963).

These suggestions are not meant to be exhaustive; they are meant to illustrate that conventional verbal therapy may not be enough to prevent suicide. Working with a suicidal adolescent is a risk-taking proposition in which one must be willing to deviate from stereotypical therapist/client roles, especially if your "style" is typically nondirective.

While certain activities are important to include, or at least consider in treatment, others are best avoided. The following list includes recommendations of things not to do.

Passivity. Do not be passive. When dealing with a suicidal adolescent, a passive psychologist may very well turn off the individual to the therapeutic process and thereby precipitate further crises. Being passive with an adolescent can give them the message that you are uninterested. It can easily be interpreted as an authoritative judgmental position, whereby the probability of rebellious behavior is increased.

Passive behavior on the part of the psychologist assumes that the initiative for the therapeutic process resides with the adolescent; when dealing with a potential suicide, the therapist does not have that luxury. Very often the adolescent will be resistive, possibly hostile, always confused in terms of what to expect. It is the psychologist's responsibility to assume the initiative and begin to set the therapeutic process in motion.

Involvement. Do not become committed halfway. The therapeutic encounter may last several days to several months. It will probably involve more than just office time. If you cannot commit yourself to the possible demands that may be placed on you, then you have two alternatives:

1. Make it very clear to the adolescent what you would or would not be available for at the outset.

2. Refer the adolescent elsewhere immediately.

If you go with the first alternative, you may have to make arrangements for another professional, acceptable to the adolescent, to fill in where you can't. This can easily happen when, as a school psychologist, one is assigned a school that is far from your home. In this case, you may be reasonably available to the teenager only when you are in the building. You would then need to make arrangements with another professional for those other times. Perhaps the school social worker would be a good alternative.

Alternative 2 may be a reasonable choice as well, particularly if your workload is such that you cannot commit yourself to meet with the student in a regularly scheduled time. The therapeutic process cannot be done on a "comme se, comme sa" basis. The commitment is one on both sides, and not being able to adhere to a schedule can convey a lack of involvement on the psychologist's part.

Honesty. Do not necessarily accept what the adolescent says as necessarily true. I am suggesting that a suicidal adolescent is in desperate straights and:

1. Can interpret events in their lives to justify their present situation.

2. They can be very manipulative and try to pit one person against the other. Often this is done because they have no other means of dealing with their predicament. In fact, they may not even be aware of doing it.

By double checking as much as possible, the psychologist can circumvent many of the difficulties associated with dealing with false information, and at the same time, help the teenager to correct his interpretation of the present situation. Furthermore, by getting a second perspective whenever possible, the therapist is often able to gain insight into how realistic the suicidal adolescent is in assessing their environment, and generally, how credible they are. This may then add to or detract from the prognosis.

In summary, the strategies described above should be considered whenever working with this type of population. As mentioned before, it is not meant to be all inclusive or restrictive, but is meant to emphasize the point that diversity and electicism in working with the suicidal adolescent population is, in this writer's opinion, necessary.

As noted, there is no specific follow up or monitoring procedure outlined. It is felt that monitoring and follow up is "built" into the therapy process. Furthermore, the hoped for relationship between the adolescent and psychologist will provide a strong bond that will insure adequate follow up, probably at the initiation of the adolescent.

Questions and Answers

Following is a brief question and answer section to cover some questions that have been brought to my attention that may not necessarily be answered directly or sufficiently enough within the body of this paper.

1. Manipulation versus real? This concern is probably the most consistent. It underlies the myth that if a threat is "manipulative," then the client won't really do it. Although this issue is briefly discussed, it bears repeating; because the threat is seen as primarily manipulative, does not mean that the person won't do it. Most suicide threats have a component of manipulation, but there is also a strong component of desperation, a last ditch effort so to speak. Consequently, one has to, at least initially, take all

threats as real and respond accordingly. The person's own life situation is interpreted by that individual in a very personal way, making it very difficult to judge if the person's position is really that hopeless. What makes one person suicidal, does not affect another person in the same way. Only when one learns the particular personal interpretation of an individual and their typical style of response can one begin to judge the seriousness of their threat. Obviously, the more rigid, impulsive, and socially isolated an individual is, the more serious the threat. It would be presumptuous to make any more generalizations than that.

2. Community agencies? Restrictive agencies such as hospitals can provide life-saving functions. However, they also can further isolate the adolescent from peer contacts, increasing suicidal risk upon discharge. Hospitalization should be used with caution. Other agencies, such as mental health centers, private practitioners, social agencies, etc., can often provide the therapy needed for suicidal adolescents and may have more resources available in terms of responding to "off-hours" emergencies. Recreational agencies, such as the YMCA, can also be utilized. They can provide the social involvement that is often dearly needed.

3. Teacher comfortableness with suicide student who has adjusted? This issue may best be dealt with by the student. In the therapy process, the student may talk about being treated "specially" by some teachers because of their suicidal behavior. Various strategies may be utilized to help the student effectively deal with this problem. Furthermore, as the student's overall adjustment improves, teachers perceptions generally will also change. This is particularly true if some of the teachers have been involved from the onset.

4. What if the student is treated elsewhere? This can be a thorny situation, depending upon the people involved. Generally, it is the responsibility of the therapist to at least contact essential persons at the school when dealing with a suicidal adolescent. However, it is a judgment call by the therapist and some will not contact the school. In cases where the principle therapist does call, the ensuing discussion should clarify the role of the school psychologist. In cases where there is no call, the psychologist must use their judgment concerning the safety of the student. There is usually nothing unethical or inappropriate about assuming the initiative and calling the therapist to see what may be done from your position.

5. Are suicidal thoughts typical for all ages? There is very little evidence to conclude that children under approximately ten years of age typically have thoughts of suicide. Furthermore, the meaning they attribute to suicide, based on Piagetain principles, would be quite different from adolescents and adults. It probably is typical for adolescents and adults to have thoughts about suicide. However, typically the thoughts are abstract in nature and reflect personal moods and vulnerabilities on the general phenomena of suicide. Typically, thoughts of suicide experienced by most people don't usually involve a plan, nor are the thoughts self-referent.

6. Medication? In the last 15 to 20 years, anti-depressant (tricyclics, MAO's) have been used with adults. In the past 5 to 10 years, they have also been used with adolescents who are suicidal. There is a major problem with this: the therapeutic dose and lethal dose of some anti-depressants are quite close, and, therefore, the suicidal client is provided a means to complete suicide. In terms of effectiveness, anti-depressants may, in some cases of clinical depression, be successful in the short-term. Long-term effectiveness in the prevention of suicide is not supported at this point (Perlin, 1975). Effectiveness of anti-depressants from nonclinical, depressed, suicidal adolescents is doubtful. Much more research needs to be done in this area.

7. If there is a suicide, what can school psychologists do to help peers adjust? Although this is a legitimate concern, there are so many parameters to account for that it really cannot be effectively dealt with within the scope of this paper. One must consider such variables as: ethics, how publicly known was the suicide, age, circumstances of the suicide, parents of the adolescent, siblings and the ages of those siblings, and the community.

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